FIRST IN THE FIELD

Offshore

The Marine Magazine of OFFSHORE OPERATIONS

LOUISIANA OFFSHORE LEASE MAP
In Color, In This Issue

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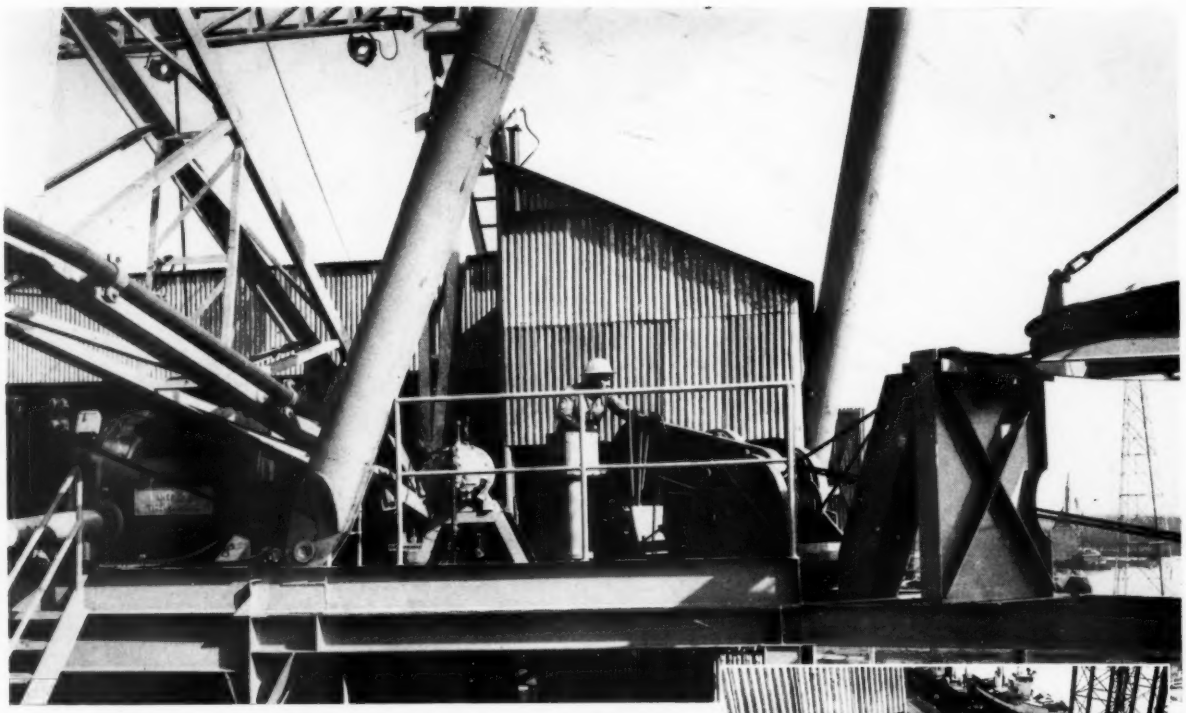

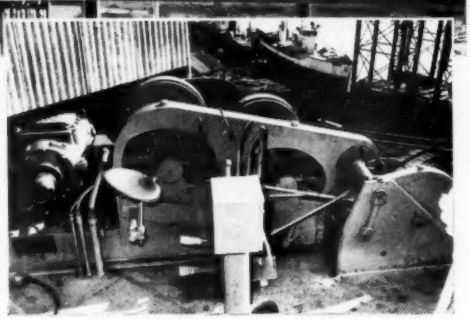

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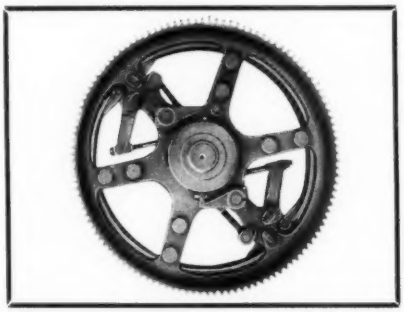

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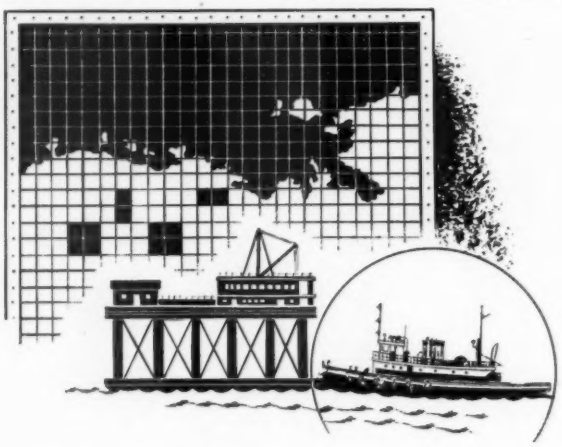

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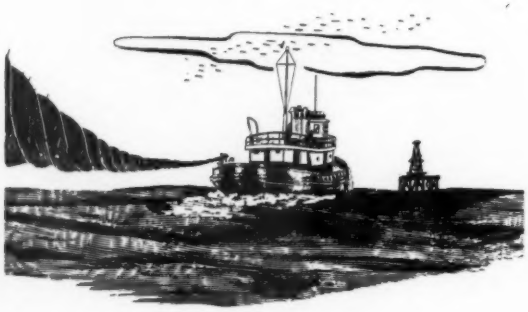

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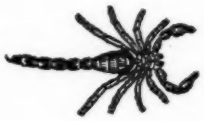
The  Story

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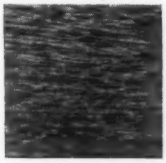
Interior will offer 511,726 submerged, but very valuable, acres in Gulf of Mexico



All About SCORPION 37

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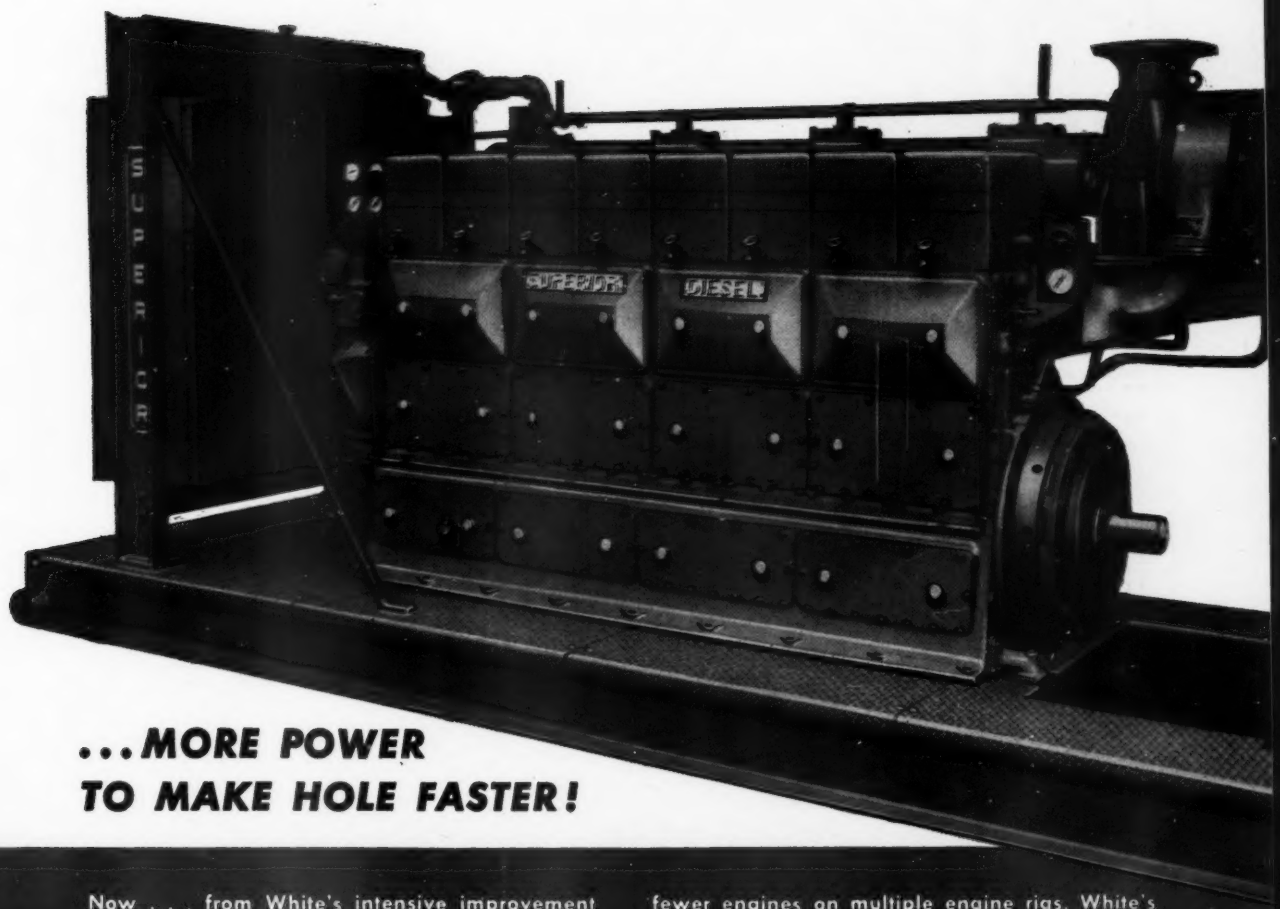

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Way Offshore
With the Publisher

HEY, WE HOPE you'll let us do a little huckstering!

Our BIGGER and BETTER Louisiana offshore lease map, the first half of which was published in our March issue, is already a crashing success. The magazine was barely out before orders for extra copies started pouring in.

But we'd like to point out that it was just half a map, and that you'll find the second—or west—half inserted in this issue.

In fact, the dad-burned thing is just a **quarter** of a map. We purposely scaled it to the Texas map, published in sections in our November and December issues, so that we now have a four-part strip map of the whole danged Louisiana and Texas coast. The entire map is roughly ten feet long—plenty big enough to spot wells or locations on, or plot fishing trips by block and number.

In case you're still wondering what we're huckstering — it's the whole she-bang. Extra copies of this Texas-Louisiana offshore lease map, with a four-color guide to ownership of submerged acreage, are available for six bucks each.

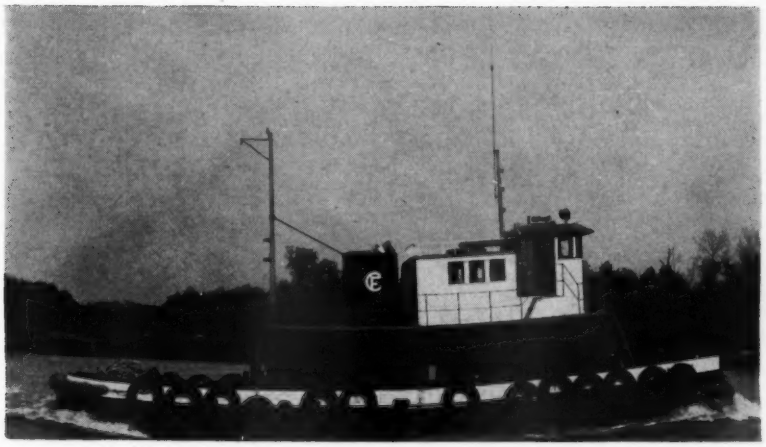
We think it's a bargain. You can't buy a Cadillac (plug) or drill an oil well for that price, so you might as well spend your six bucks with us.

In fact, we haven't even come to the best part of the offer. If you're a subscriber to OFFSHORE, you can shoot the works—buy the whole consarned map for only two bucks.

Yep, two measly bucks—all the copies you want while they last.

Just write: Map Department, P.O. Box 977, Conroe, Texas. And we expect a whole sackful of orders from this announcement!

Long John Latham



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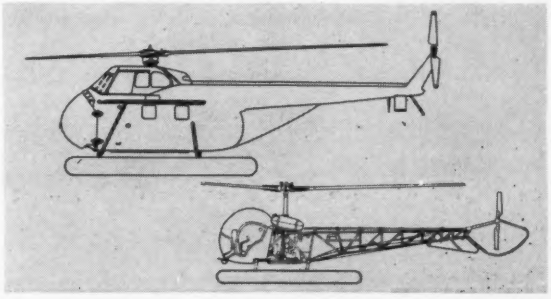

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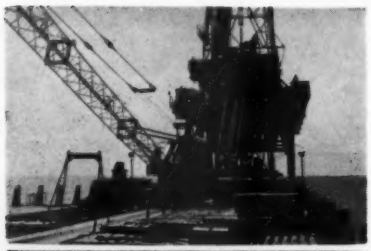

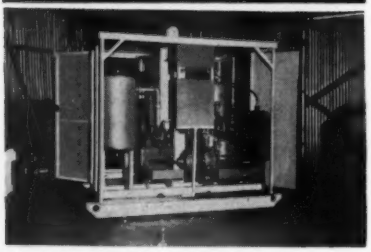

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Offshore round-table

Regulations and Cooperation

OILMEN at a March meeting in San Antonio, Texas, heard Capt. J. C. Wendland, USCG, praise cooperation between the offshore oil industry and the United States government.

The praise was in a speech which Captain Wendland made to the Spring meeting of the Southern District, Division of Production, of the API.

Captain Wendland was at the time Marine Inspection Officer of the Eighth U.S. Coast Guard District at New Orleans. He referred in particular to a long series of round-table discussions, between industry and Coast Guard representatives, which have led and will lead to offshore safety regulations agreeable to both sides.

In February, 1954, the Coast Guard formed the "Panel of Advisors on Offshore Operations to the Commander, Eighth Coast Guard District." The panel has a long name, and a longer task.

On July 1 this year a set of regulations concerned with safety equipment and procedures on offshore structures goes into effect. It is the result of about a year of discussion between government and industry—and is only one of several safety codes which must be arrived at by cooperation.

One factor makes necessary the discussions between the government and offshore industry in the field of regulations, and it is this: regulations made earlier for other marine vessels are not entirely applicable to offshore oil equipment.

Some excerpts from Captain Wendland's speech point out the regulatory situation very well:

- "New ideas, new schemes, new types of equipment must be given an opportunity to develop without too great a burden by the regulatory agency and to this end the Coast Guard must be alert and not put stumbling blocks in the way of progress, but must also be alert to see that lives and property are not unreasonably endangered."
- "All vessel operators, and especially the large ocean-going ship operators, have more than a passing interest in these fixed and mobile platforms. It has long since ceased to be a novelty to see these oil wells at sea. The ships operating in the Gulf of Mexico have been aware of and are concerned with their (oil wells) movement seaward."
- "Industry recognizes the valuable services rendered by the United States Coast Guard in respect to search and rescue, aids to navigation, marine inspection and its associated activities. Problems arising from time to time stem from the fact that offshore exploration drilling and production operations are of an entirely different nature than the operation of vessels in the ocean trade, for which the existing laws were written and upon which the present regulations are based."

The Editor

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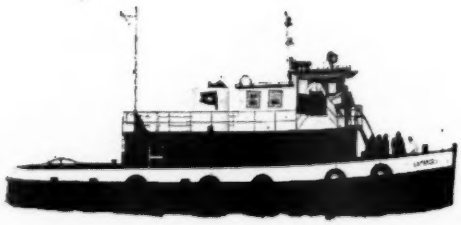
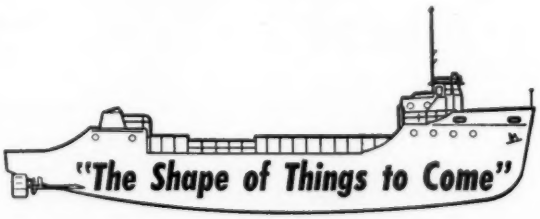


The new twin-screw 1000 HP Tug "Lamarco I" for offshore or inland operations



Artist's Drawing of the first of a series of Offshore Supply Vessels for our fleet, currently under construction

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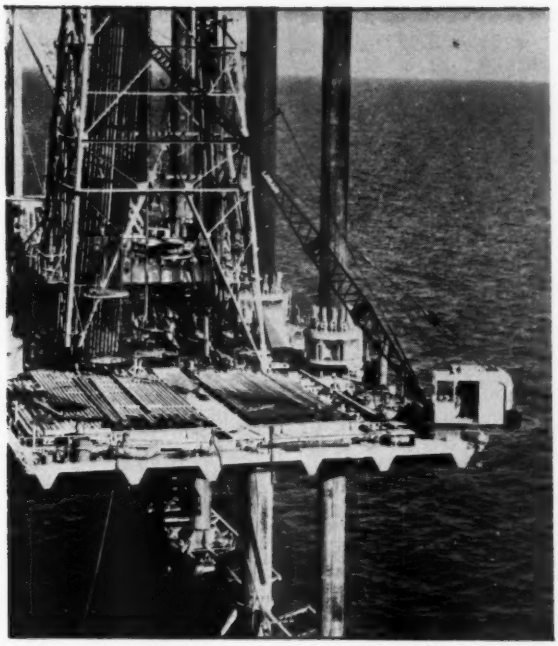

Lorain crane—one of two—mounted on C. G. Glasscock Drilling Company's mobile drilling platform, MR. GUS.

Two Lorain offshore cranes on deck of self-contained drilling platform in the Gulf of Mexico.

LORAIN

IMAGINE

NO CENTER PIN OR NUT
NO TURNTABLE ROLLERS
NO ADJUSTMENTS

WITH LORAIN'S NEW REVOLUTIONARY
"SHEAR-BALL MOUNTING"
THE GREATEST SHOVEL-CRANE DEVELOPMENT IN YEARS

CRANES

LORAIN'S "Shear-Ball Mounting" is the perfect answer to offshore crane work. Two Lorain cranes on the mobile drilling platform MR. GUS, and two Lorain cranes on the mammoth self-contained drilling platform pictured above, have greatly simplified lifting problems on both deep-water units. The machines are designed with power load lowering, hydraulic couplings, shear-ball mountings — plus many other features that make them ideal for offshore drilling programs.

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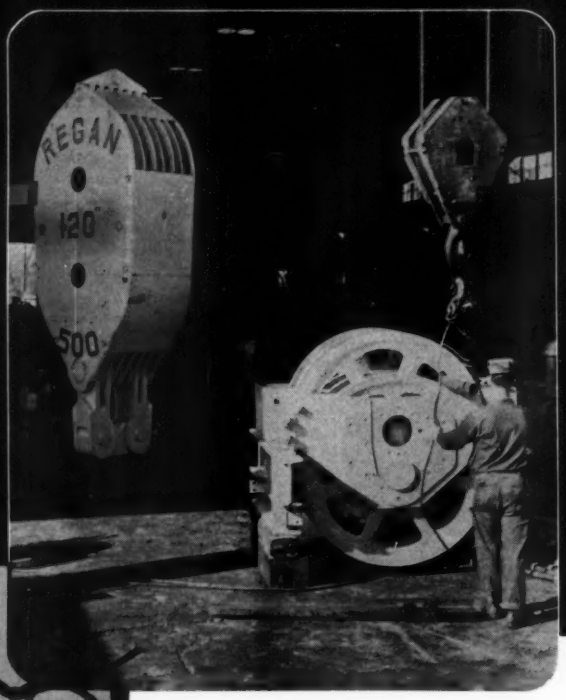

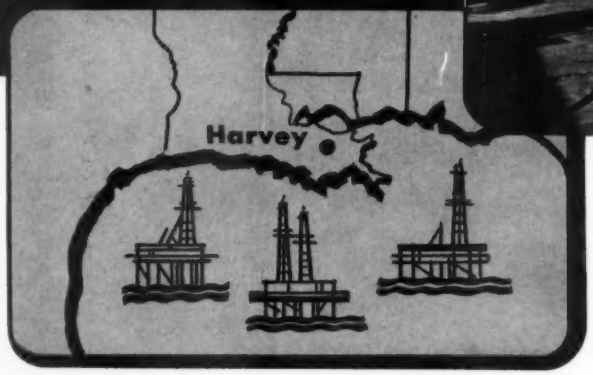

These E. H. 500 Ton Capacity Crown and Traveling Blocks were completely overhauled in just 9 working days.

You will find that Avondale's Oil Tool Service at the Harvey Yard can serve you better . . . and faster. Qualified and experienced Engineers, Machinists, Mechanics, Electricians and Supervisors—large capacity facilities in the Oil Field Machine Shop, adequate for all types of oil field equipment—Electrical Shop equipped with the finest and most modern equipment available. Yes, for prompt and efficient service, send your next job to Avondale.

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April, 1956 **Offshore** Vol. 4, No. 2

Down "wind alley" to . . .

A Drilling Rig At Sea

By ARTHUR I. COYLE
Technical Editor

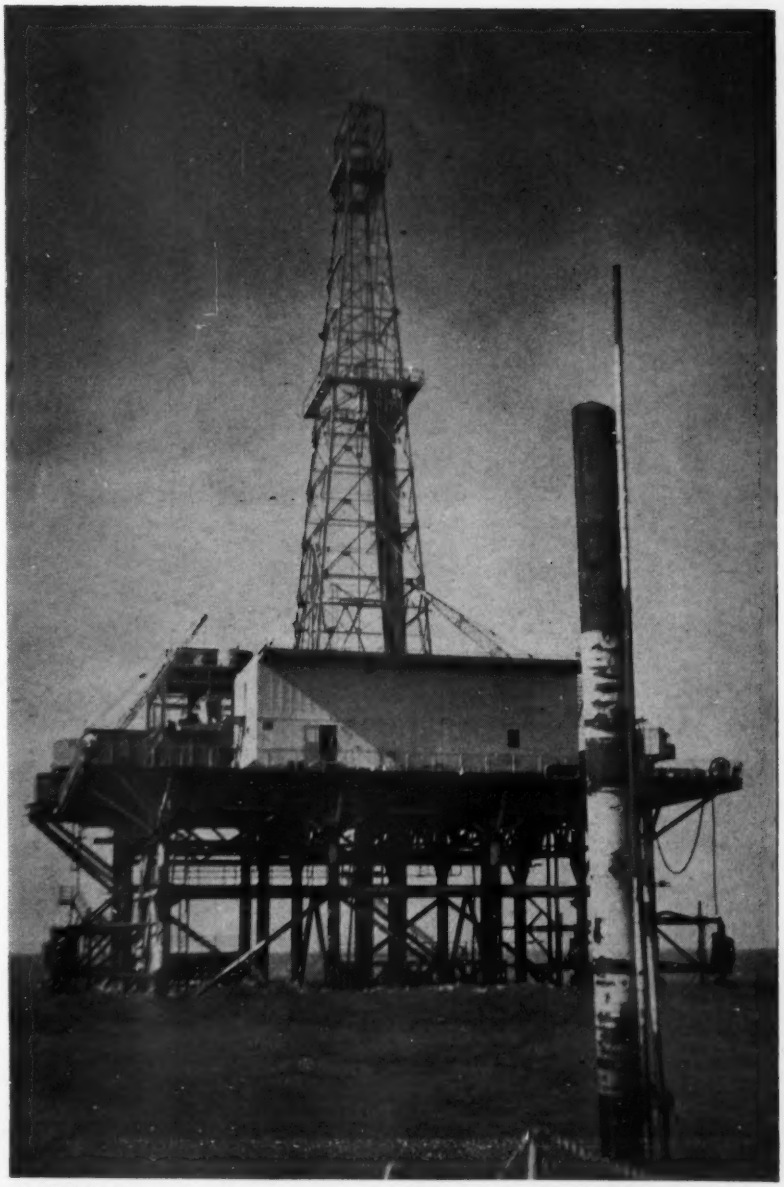
BREWSTER-BARTLE Drilling Co. of Houston, Texas has rigged up on Gulf Oil Corporation's new self-contained drilling platform off the Texas coast in 46 feet of water. Location is Texas State Lease No. 41338, Block 889, six miles off Mustang Island. The structure surrounds an earlier discovery drilled by Gulf Oil Corporation. Completed at 11,452-86 feet, the well has sanded up. At least one additional directional well will be drilled from the platform by Brewster-Bartle Drilling Company.
Brewster-Bartle maintains field offices at dockside in Aransas Pass, Texas. The hour and a half to make the trip from the docks to the offshore platform is uneventful until the boat enters the Gulf of Mexico and swings down the windward side of Mustang Island. From this point on the trip becomes rough, as 10 to 15 foot waves are normally encountered. The area is known as "wind alley".

One is lucky if he arrives at the giant platform on a calm day, because he can debark from the boat to the platform landing dock if the waves are less than five feet high. However, it is a different story in rough weather. Then the only way to reach the first deck, 50 feet above the water, is to be pulled aboard by a crane while clinging to a landing net.

This can be quite a feat when the waves are high. Should you catch hold of the net while the boat is in a trough, you will probably be spanked by the boat deck if the crest of the next wave arrives before the crane operator hauls the net clear.

Blue Chip investment . . . A $77 thousand derrick and engine sub-

(continued on page 21)



Gulf Oil Corporation's self-contained drilling platform, with Brewster-Bartle packaged rig, stands in 46 feet of water off the Texas coast.

HYDRAULIC JACKS BUILT BY

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*THIS TONNAGE WAS ENGINEERS' FIGURE ON RIG-WEIGHT OF SALT DOME PRODUCTION CO. RIG NO. 10.

New packaged rig for self-contained offshore platforms can be rigged up in three days—incorporates unusual safety and lift features

(continued from page 19)

structure, a $40 thousand Lee C. Moore two-well derrick, and a $156 thousand living quarters structure —or "Coptel"—make up a part of Brewster-Bartle's $1.2 million 15,-000-foot packaged drilling rig on the platform. As one of the partners remarked, "It's a hell of a lot of money for two po' boys to scrape up!"

The rig was assembled at Harvey, Louisiana. The rig arrived on location January 27, but rough weather delayed unloading until midnight, February 4. By the next noon the rig was unloaded on the platform.

By February 13 the rig lacked only completion of the derrick and stringing up of the blocks before operations could start. Several work days had been lost due to high winds, preventing the rig builders from completing the derrick. The packaged unit can be skidded with the two Stine hydraulic jacks for drilling additional wells.

Power . . . Three 400 hp Superior diesel engines, supplied by the engine division of the National Supply Company, power the "Oilwell" 96 drawworks and pumps. The GM 100-kw electric generating plants were supplied by Stewart & Stevenson Services, Inc. of Houston.

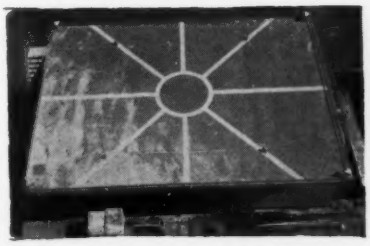
Coptel . . . Constructed by Avondale Marine Ways, Inc., of New Orleans, La., the 30' x 60' living quarters will accommodate 40 men. The top deck of the structure forms a heliport. Air conditioning is by Carrier Weathermaker, installed by O. B. Lewis Company of New Orleans, and the living quarters are

(continued on page 23)

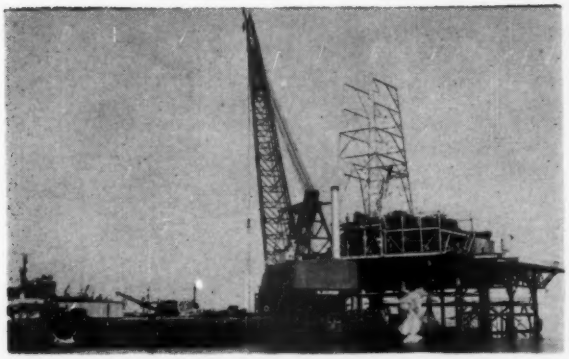
From left to right, R. E. Jones, civil engineer, Gulf; L. E. Musgrove, toolpusher, Gulf; P. E. Gordon, toolpusher, Brewster-Bartle; M. R. Redick, zone drilling engineer, Gulf; and Clifford Manning, toolpusher for Brewster-Bartle.

Mud Engineer Paul McCorkle standing on circulating mud tanks.

Schlumberger personnel, from left to right: Van F. Pease, E. L. Britt and C. T. Sanders.



The "Coptel," or living quarters, built by Avondale Marine Ways

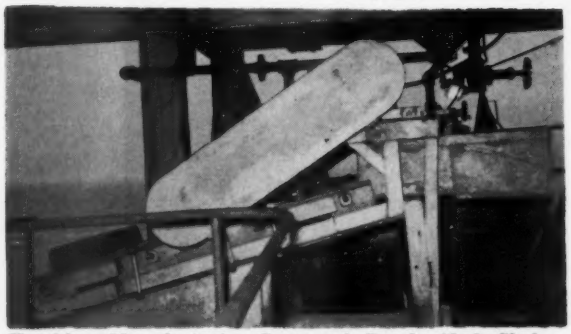


Barge and unloading equipment during rigging-up.

"Oilwell" 96 drawworks, used for drilling operations.

Drilling rig at sea . . .

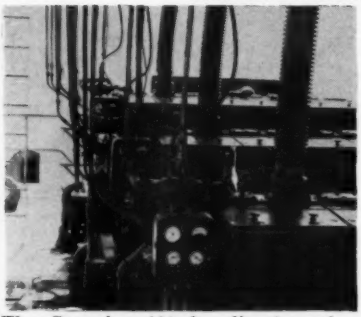
(Text continued on next page)



Hutchison Manufacturing Company's Rumba Shale Shaker. Shaker.

M. R. Redick, Gulf's zone drilling engineer, talks over company's two-way radio. At his right is drilling contractor's radiotelephone.

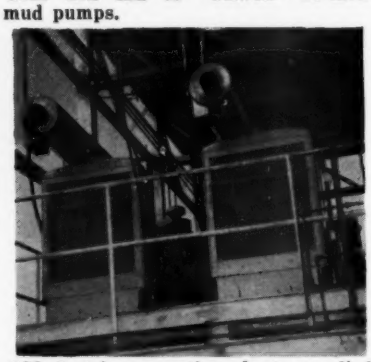
Galley and catering personnel. "Boatel Service" aboard the platform is supplied by General Marine Corporation of Harvey, La.



The Superior 400 hp diesel engines powering drawworks and pumps.

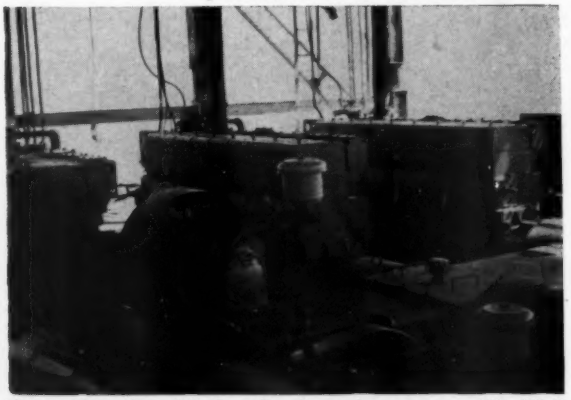
Gear box end of "Oilwell" 20-inch mud pumps.

Looking down on the Halliburton cementing unit.

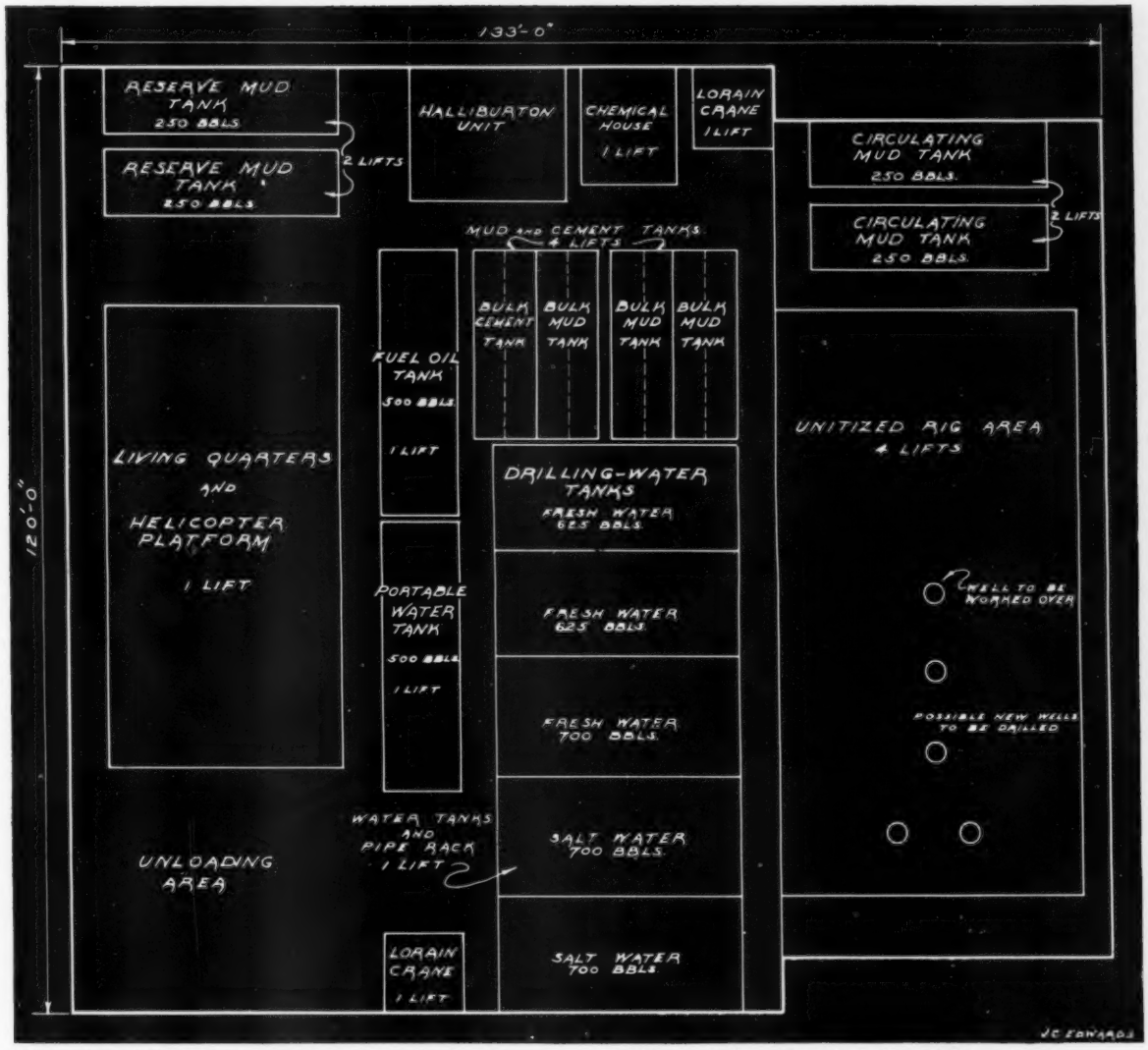


GM electric generating plants supplied by Stewart & Stevenson Services.

One of two Lorain cranes supplied by Head and Guild of Houston.



Three Superior 400 hp diesel engines power Oil Well Supply Division's drawworks and pumps.


133'-0"
RESERVE MUD TANK 250 BBLS
RESERVE MUD TANK 250 BBLS
2 LIFTS
HALLIBURTON UNIT
CHEMICAL HOUSE 1 LIFT
LORAIN CRANE 1 LIFT
CIRCULATING MUD TANK 250 BBLS.
CIRCULATING MUD TANK 250 BBLS.
2 LIFTS
MUD AND CEMENT TANKS 4 LIFTS
BULK CEMENT TANK
BULK MUD TANK
BULK MUD TANK
BULK MUD TANK
FUEL OIL TANK 500 BBLS 1 LIFT
LIVING QUARTERS AND HELICOPTER PLATFORM 1 LIFT
120'-0"
DRILLING-WATER TANKS
FRESH WATER 625 BBLS
PORTABLE WATER TANK 500 BBLS 1 LIFT
FRESH WATER 625 BBLS
FRESH WATER 700 BBLS.
WATER TANKS AND PIPE RACK 1 LIFT
SALT WATER 700 BBLS.
UNLOADING AREA
LORAIN CRANE 1 LIFT
SALT WATER 700 BBLS.
UNITIZED RIG AREA 4 LIFTS
WELL TO BE WORKED OVER
POSSIBLE NEW WELLS TO BE DRILLED
JC EDWARDS

Floor plan of first deck, Gulf Oil Corporation's self-contained drilling platform in Block 889, Gulf of Mexico.

heated by Industrial Engineering and Equipment Company's Blast Coil Heater. General Marine Corporation's Boatel Service supplies food on a round-the-clock basis for as many as 20 men at a time. There is a recreation room, complete with television, for off-duty entertainment.

Blowout equipment . . . Three QRC Cameron blowout preventers and one Hydril preventer, plus two pressure-operated master gates, are controlled at the driller's station and from two remote stations. The rig incorporates many standard, plus unusual safety features. Preventers and valve closing oil pressures are supplied by the Hydril automatic pressure accumulator and a high-pressure Payne Manufacturing Company pump standby unit.

Drilling mud . . . Storage for 3600 sacks of bulk barites is provided in bulk mud tanks. Five hundred barrels of reserve mud is available in addition to the 500 barrels held by the circulating mud tanks. Probable mud program will call for a seawater, lime base and oil emulsion system. Present suppliers are E. I. Du Pont de Nemours & Company, CMS; Product Development Company, Oxox (emulsifier); Arnold & Clark, 100 percent Quebracho; Mallinckrodt Chemical Company, Gallic Acid; Baroid Mud Sales, Barites; Magnet Cove Barium Company, Barites, with Kaffie Lumber and Building Company and Bulk Barites, Inc. of Corpus Christi, Texas, as distributors.

RIGGING UP

Brewster-Bartle officials estimate that it will require only three days to rig up on the next location. Unitized equipment loading and unloading lifts include:

Coptel—1 lift

Lee C. Moore derrick and substructure lifted at 30° angle —1 lift.

Pump and motor section—1 lift

Schlumberger deck—1 lift.

Cement storage . . . Storage space for 1200 sacks of bulk cement is provided adjacent to the Halliburton cementing unit.

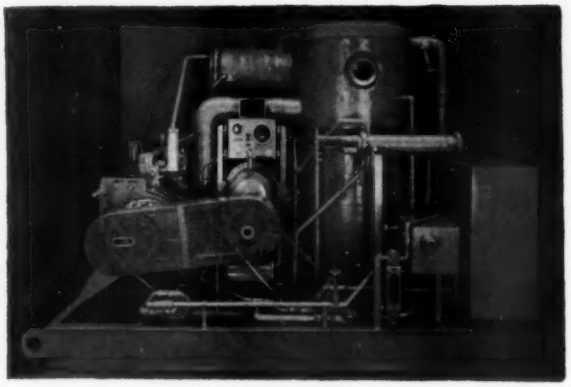
Pipe rack . . . The top of the five water tanks forms the pipe rack.

Personnel . . . Clifford Manning and P. E. Gordon are Brewster-Bartle's toolpushers.

Drilling crews work 10 days on with five days off. Contractor's tool-pushers alternate five days each on the rig and five days in the Aransas Pass office.

POTABLE WATER FROM SEAWATER - CONTINUOUSLY

The MECO Water Distillation Unit in the picture is just one of the many installations serving the petroleum industry all over the world by producing both potable water and drilling water. Diesel powered thermocompression units are independent of other rig or tender machinery, and are available in sizes to meet all requirements. Thermocompression units are also powered by natural gas engines, or by electric motors with immersion heaters.



Model PD200K

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are

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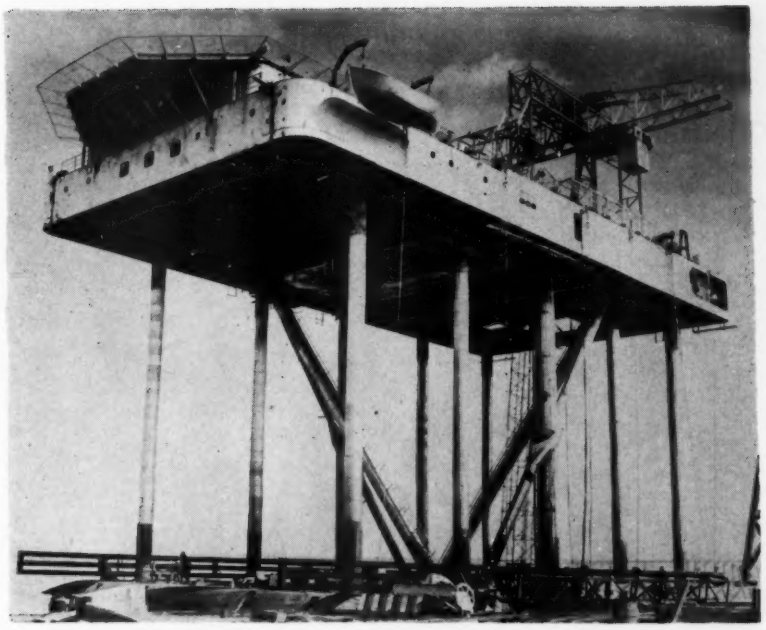


Christened in ceremonies at Avondale Marine Ways, Inc., in New Orleans March 20, The California Company's new mobile unit, S-55, is scheduled to commence operations north of Pass A Loutre. Note bridge crane, top right.

Calco's S-55 Is Christened

Avondale-built unit for 75 foot water depths uses bridge crane for material handling, has anti-scouring hull design

A BRIDGE crane extending over the complete deck and outboard over both starboard and port sides is just one of several special features of The California Company's new mobile unit, **S-55,** christened recently in New Orleans.

At ceremonies March 20 the S-55 was sponsored by Mrs. T. B. Flood, wife of T. B. Flood, vice president and general manager for production of The California Company.

The **S-55** is the largest marine structure—with respect to length and beam—built at Avondale Marine Ways, Inc., to date. It is 190 feet long, has a molded beam of 150 feet, and is 90 feet high from keel to bottom of superstructure. It has a 75-foot depth potential.

In addition to the bridge crane, which will facilitate material handling, **S-55** has a special anti-scouring hull, fitted with anti-scouring coaming, and a shaped bow.

All ballast and fresh water pumps, as well as fresh water and fuel oil, are in the lower hull with the generating units. Mud pumps and pits are on the main deck. The four-hole derrick will have a 1 million pound rating.

Air-conditioned quarters are located under the heliport and will have space for 84 men.

First operations of **S-55** are to be north of Pass A Loutre.

Record-breaking Mobile Unit

Glasscock Drilling Company orders a $6.75 million platform for use in water as deep as 125 feet in hurricane season

C. G. GLASSCOCK Drilling Company's second mobile drilling platform, now being built at Beaumont, will be for record water depths and cost a record amount.

The new unit, **"Rig 12"** but otherwise unnamed, can be used in water as deep as 150 feet in non-hurricane season and will cost $6.75 million complete with attending boats.

It will also be capable of drilling two wells at the same time and is designed for all water bottoms.

Completion of the 7,000-ton unit for the Corpus Christi, Texas, drilling firm is expected in January, 1957. It is being built by Bethlehem Steel Corporation.

Glasscock official J. B. Johnson describes **"Rig 12"** as an abrupt modification of **Mr. Gus,** the firm's first mobile unit. The new unit will incorporate design improvements resulting from experience offshore.

On bottom . . . Use of a gigantic 200′ x 180′ bottom mat in conjunction with driven piling adapts the unit for all bottoms. In making lo-

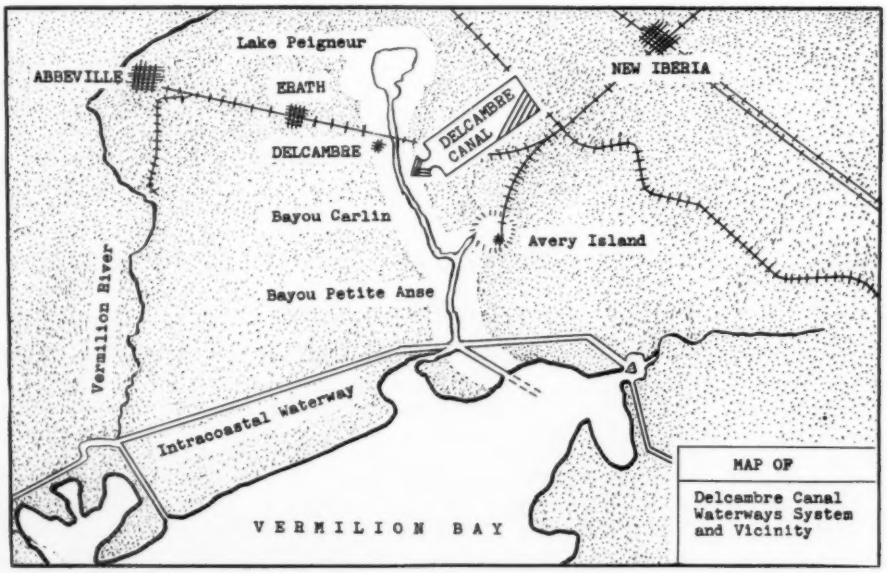
(continued on page 27)

TIDELANDS TERMINAL COMPANY, INC.

HARRY L. MITCHELL

P. O. BOX 321 PHONE 5-2433 DELCAMBRE, LA.

Pictured above is the plant and storage facilities of Tidelands Terminal Company on the Delcambre Canal at Delcambre, La. Map below illustrates canal connecting with Vermilion Bay. Soon to be widened to 80 feet, and dredged to 9 feet deep, the canal makes Delcambre an ideal base for offshore operations.



SERVICING OFFSHORE OPERATIONS FOR:

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$6.75 Million Unit. . .

(continued from page 25)

cation, the bottom mat is lowered to the ocean floor, the deck raised by jacks on the four 10-foot-diameter columns, and pilings then driven through the center of the columns.

The unit thus incorporates advantages of both spread footing and piling foundations.

In hurricane season Glasscock's platform will have a depth potential of 125 feet, allowing 50 feet of clearance above mean Gulf level. In non-hurricane season use of only 25 feet of clearance will allow operations in 150 feet of water.

On deck . . . At platform level the unit measures 258' x 104', including the heliport.

Platform design and equipment is pointed toward the ability to drill two wells at the same time, but the unit will not originally have the necessary additional drawworks, travelling equipment, and rotary.

The 140-foot derrick does not need to be moved to drill six wells. Plans call for a 2,000 input hp drawworks and three 1,000 input hp pumps.

Depth potential of the new Glasscock platform enables it to operate in virtually every block now under lease and more than 90 miles from shore.

$3 Million Unit

New Submersible Ordered By New Offshore Company

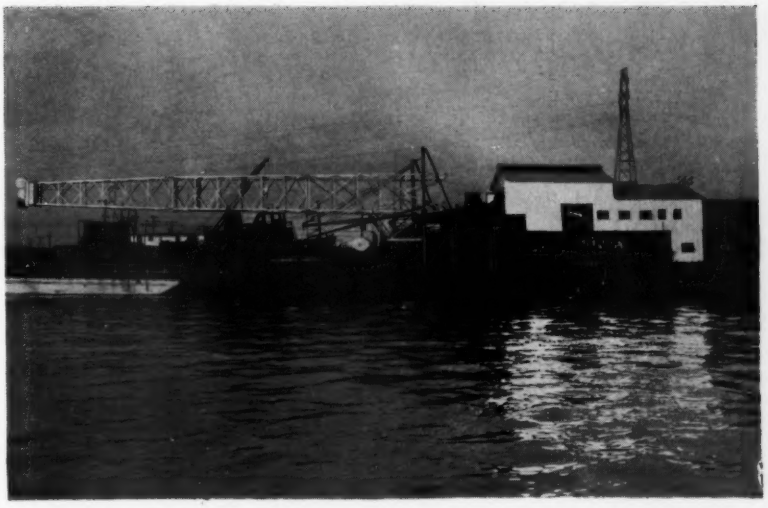
Ingalls Shipbuilding Corporation has been awarded a contract to build a $3 million submersible mobile drilling platform for the Louisiana Offshore Drilling Company, Inc.

Louisiana Offshore's unit will be for water to 65 feet deep. Hull is to be 180 feet long, 151 feet wide, and 12 feet deep.

The latest type of diesel-electric drilling rig is to be used. Living quarters for 44 men will be air-conditioned.

Friede & Goldman, Inc., of New Orleans, designed the platform.

The Louisiana Offshore Drilling Company is headed by Alvin Howard of the New Orleans firm of investment brokers, Howard, Weil, Labouisse, Friedrichs and Company.



Ward Drilling Company's 165-foot marshland drilling barge at Alexander Shipyard, New Orleans, where it was designed and constructed. Jacks, just left of substructure, make the barge unique.

Jacks Raise The Derrick

Telescoping hydraulic jacks on Ward Drilling Company's RIG 1 give more safety, control

A NEWCOMER to the marshland drilling field, Ward drilling Company of Baton Rouge, Louisiana, has a uniquely equipped drilling barge.

The company's 165-foot marshland barge has a 132-foot derrick which is raised and kicked over by means of two hydraulic jacks—instead of relying on more conventional use of the drawworks.

Use of the jacks provides greater control and safety. The Wilson manufactured telescoping jacks are located just forward of the substructure and are operated by pressure built up by an individual hydraulic pump.

The independent hydraulic pump system is also used to operate the hydraulic slips and tongs.

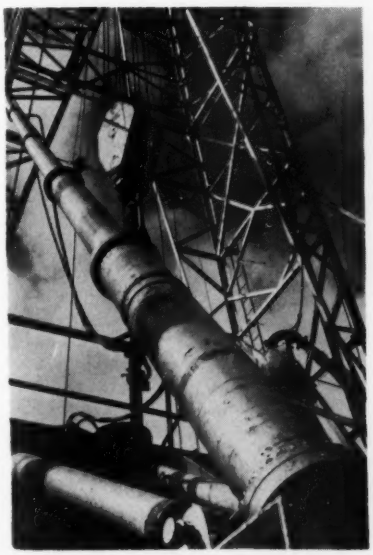
Derrick raised is a 12' x 24' x 132' conventional type.

Other equipment . . . Also used on the barge are Wilson Titan drawworks and compound with 1,200-hp General Motors power units; a Wilson coring unit; and a 27½ Oilwell rotary independently driven by a 390-hp General Motors power unit.

The barge is 165' x 46' x 10' 9". It has an 85'9" x 10' slot and was designed to drill a 13,000-foot well.

Ward's unique barge went on location near Venice, Louisiana, early this year. The drilling company is owned by J. D. and Travis Ward, with J. D. Ward the president.

The barge, **Rig No. 1**, was built by Alexander Shipyard of New Orleans.



One of two hydraulic jacks which telescope to raise and kick over the derrick on Ward's RIG 1. The first-of-their-kind jacks provide greater safety and control while positioning the derrick.

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Check this list against others:

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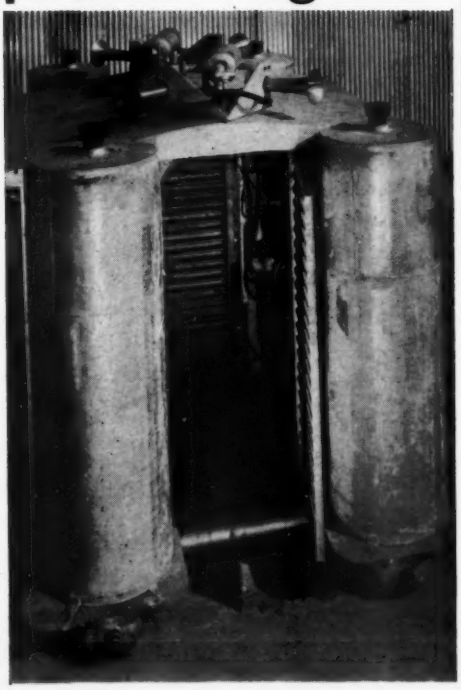
✓		Plug-in type control panel?
✓		Stand-by engine heater?
✓		Torque converter between engine and compressor?
✓		Water cooled compressor?
	✓	Handling slings, etc., needed?
✓		Either engine can be stand-by engine?
✓		U.S.C.G. approved horns?
✓		Integral or remote fuel tanks?

This automatic fog horn assembly is available in 7' x 7' or 7' x 11' (with optional fuel tanks). Accessibility, easy maintenance, and price are a few of its advantages. Both a large safety factor and simplification of control and operation have been incorporated in its design.

Come by and see our demonstration model or write for further information.



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USCG Regulations Effective July 1

New code of rules for platforms, mobile units, regulates safety equipment, its location, and disaster drills

ON JULY 1 new U. S. Coast Guard regulations governing safety equipment and procedures on fixed structures on the outer continental shelf will go into effect.

The regulations spell out precise specifications for marine safety appliances and methods on all such structures, manned or unmanned, mobile or built up. They do not apply to drilling equipment or methods.

Part of the new regulations, concerned with equipment requirements and applications, is condensed below.

Coast Guard specifications also call for regular inspection of platforms, general alarm systems, emergency duty stations for each man and regular drills simulating emergencies, identification marks for each platform, casualty reports to the Coast Guard, and penalties for failure to comply with regulations.

The following is condensed from new USCG regulations. The complete subchapter was published in the "Federal Register" on February 9, 1956, copies of which can be obtained from the U. S. Government Printing Office, Washington 25, D. C.

PART 143—CONSTRUCTION AND ARRANGEMENT

Application . . . Provisions of this part apply to all artificial islands and fixed structures.

Means of escape . . . Fixed metal stairways or ladders, extending from platform to surface of the water at low tide, are to be provided—at least one for each unmanned platform and at least two for each manned platform.

Personnel landings . . . Sufficient personnel landings shall be provided each manned platform to assure safe access and egress. In special circumstances other suitable means of transfer may be substituted. A minimum of one foot candle of artificial illumination, measured at the landing floor and guards and rails, is to be provided.

Guards and rails . . . Except helicopter decks and areas not normally occupied, all floor or deck areas shall be rimmed with guards and rails or wire mesh fence at least 42 inches high. Two intermediate rails shall be approximately evenly spaced between deck and top rail. If a toe board is installed one intermediate rail may be omitted and the other placed halfway between the top of the toe board and the top rail.

The helicopter landing deck shall be protected with a device to prevent any person falling from such deck.

Suitable guard rail or rails shall be installed for catwalks and stairways.

PART 144—LIFESAVING APPLIANCES

For Manned Platforms

Life Floats . . . Each manned platform shall have at least two approved life floats capable of accommodating all persons present at any time. Floats shall be mounted outboard of the working platform in accessible locations where they can be readily launched.

Each float shall have a painter not less than 2¾ inches in circumference and not less than three times as long as the distance from low water line to the deck or place the float is stowed. Electric water lights are to be provided for each float, attached by a lanyard not less than one fathom or more than two fathoms in length. The water light shall be mounted in a bracket so that when the life float is launched the light will pull free of the bracket. Each float shall have two paddles five or six feet long, so stowed as to be accessible from either side of the life float when in the water.

Alternates for life floats . . . Approved lifeboats or life rafts may be substituted for floats, and they must have approved means of launching. Lifeboats must have a bailer, boat hook, bucket, hatchet, lantern, life line, two life preservers, matches, full complement of oars and steering oar, painter, plug, and rowlocks of the same type, kind, and character as required for lifeboats on vessels navigating bays, sounds, and lakes other than the Great Lakes and rivers.

Life rafts must have a boat hook, life line (if not a Type A life raft), full complement of oars and steering oar, painter, and rowlocks of the same specifications as required on life rafts on cargo and miscellaneous vessels navigating bays, sounds, and lakes other than the Great Lakes.

Life preservers . . . An approved adult life preserver shall be provided for each person on a manned platform. Preservers shall be located in easily accessible places.

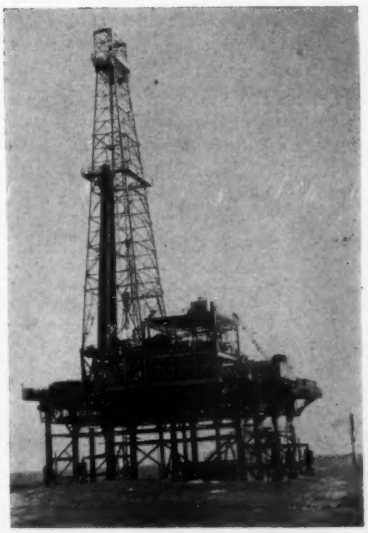
Ring life buoys . . . At least four approved ring buoys shall be placed on each manned platform, one each on a suitable rack on each side of the platform. Ring life buoys shall be capable of being cast loose and not permanently secured in any way.

Each ring life buoy shall have an approved electric water light, attached by a lanyard not less than three nor more than six feet long. The light shall be placed in a bracket near the buoy so when the buoy is cast loose the water light will pull free of the bracket.

First-aid kit . . . A first-aid kit approved by the USCG Commandant or the U.S. Bureau of Mines shall be provided on each manned platform and kept in the custody of the supervisor. A Stokes litter shall be provided for each platform also and kept in an accessible place.

Emergency communications equipment . . . Means of communicating

(Continued on Next Page)



. . . new rules for fixed structures

Portable and Semi-portable Extinguishers

TABLE 145.10 (a)

SPACE	CLASSIFICATION	QUANTITY AND LOCATION
Safety Areas		
Communicating corridors	A-II	1 in each main corridor not more than 150 feet apart (may be in stairways)
Radio room	C-II	1 in vicinity of exit
Accommodations		
Sleeping accommodations	A-II	1 in each sleeping accommodation space (where occupied by more than four persons)
Services Spaces		
Galleys	B-II or C-II	1 for each 2,500 square feet or fraction thereof for hazards involved
Storerooms	A-II	1 for each 2,500 square feet or fraction thereof located in vicinity of exists, either inside or outside of spaces
Machinery Spaces		
Gas-fired boilers	B-11 (carbon dioxide or dry chemical)	2 required
Gas-fired boilers	B-V	1 required (1)
Oil-fired boilers	B-II	2 required
Oil-fired boilers	B-V	1 required (1)
Internal combustion or gas turbine engines	B-II	1 for each engine (2)
Electric motors or generators of open type	C-II	1 for each 2 motors or generators (3)

1) Not required where a fixed carbon dioxide system is installed.
2) When installation is on weather deck or open atmosphere at all times one B-II for each three engines is allowed.
3) Small electrical appliances, such as fans, etc., shall not be counted or used as basis for determining number of extinguishers required.

(Continued from Preceding Page)

by radio and/or wire telephone with ships and shore shall be provided for aid in emergencies.

Unmanned Platforms

Life preservers . . . An adult life preserver shall be provided for each person present when crews are working continuously on a 24-hour basis. Preservers shall be located in easily accessible places.

Ring life buoys . . . At least four approved ring life buoys shall be placed on unmanned platforms when crews are working continuously on a 24-hour basis. Requirements for storage, arrangement, and water lights are the same as for life buoys on manned platforms.

Other lifesaving appliances . . . While life preservers and ring life buoys are the only lifesaving appliances required on unmanned platforms and then only when crews are working continuously on a 24-hour basis, if at times other lifesaving appliances are provided the pertinent requirements in this part shall be met with respect to the type and character thereof.

PART 145—FIRE-FIGHTING EQUIPMENT

Portable and semi-portable fire extinguishers . . . On all manned platforms and on all unmanned platforms where crews are continuously working on a 24-hour basis, approved type portable fire extinguishers and/or approved type semi-portable fire extinguishers shall be installed and maintained. On all unmanned platforms where crews are not continuously working on a 24-hour basis, approved type portable fire extinguishers and/or approved type semi-portable fire extinguishers are required to be installed and maintained only when crews are working thereon.

Classification of fire extinguishers . . . Portable and semi-portable extinguishers shall be classified by a combination letter and number symbol. The letter indicates the type of fire which the unit could be expected to extinguish, and the number indicates the relative size of the unit.

The types of fires will be designated as follows:

1) "A" for fires in ordinary combustible materials where the quenching and cooling effects of quantities of water, or solutions containing large percentages of water, are of first importance.

2) "B" for fires in flammable liquids, greases, etc., where a blanketing effect is essential.

3) "C" for fires in electrical equipment where use of a non-conducting extinguishing agent is of first importance.

Number designations for size will start with I for the smallest to V for the largest. Sizes I and II are considered portable. Sizes III, IV, and V are considered semi-portable extinguishers which should be fitted with suitable hose and nozzle or other practicable means so that all portions of the space may be covered. Examples of size graduations for some of the typical portable and semi-portable extinguishers are set forth in Table 145.05 (c).

All portable and semi-portable extinguishers shall have permanently attached a durable name plate giving the name of the item, rated capacity in gallons or pounds, name and address of the person or firm for whom approved, and identifying mark of the actual manufacturer.

Locations and number of fire extinguishers required . . . Approved portable and semi-portable extinguishers shall be installed in accordance with Table 145.10 (a).

Portable and Semi-portable Extinguishers

TABLE 145.05 (c)

Classification type, size	Soda-acid and water, gallons	Foam gallons	Carbon dioxide, pounds	Dry chemical, pounds
A-II	2½	2½	——	——
B-II	——	2½	15	12
C-II	——	——	15	12
B-V	——	40	100	*

* Minimum values not established at this time.

These 161 Federal Tracts Will Be Auctioned

U. S. Lease Sale May 15 To Offer 511,726 Acres

May 15 is the date set for the next federal lease sale. The Department of the Interior will offer 152 tracts off Louisiana and nine tracts off Texas, for a total of 511,726 acres. Texas acreage totals 23,040 acres.

Acreage offered falls well below a record 794,500 acres requested by operators.

Tracts for lease cover a wider depth range—20 to 140 feet—than in earlier auctions. Previous acreage has been in 40 to 100 feet of water. Tracts range from 1,440 to 5,000 acres.

Sealed bids will be accepted by mail or personal delivery at the Outer Continental Shelf Office, Bureau of Land Management, 608 Masonic Temple Building, New Orleans, until 10 a.m. May 15.

LOUISIANA

EAST CAMERON

Tract	Part	Block	Acres
La.-371	E½	33	2,500
La.-372	W½	33	2,500
La.-373	E½	34	2,500
La.-374	W½	34	2,500
La.-375	W½	39	2,500
La.-376	E½	40	2,500
La.-377	W½	40	2,500
La.-378	E½	41	2,500
La.-379	W½	41	2,500
La.-380	E½	42	2,500
La.-381	W½	42	2,500
La.-382	All	65	5,000
La.-383	S½	66	2,500
La.-384	All	109	2,170.10
La.-385	All	142	5,000
La.-386	All	143	5,000
La.-387	E½	150	2,500
La.-388	E½	159	2,500
La.-389	E½	168	2,500

VERMILION

Tract	Part	Block	Acres
La.-390	That portion on the outer Continental Shelf seaward from line 3 geographic miles from the coast line	27	3,700
La.-391	SE¼	75	1,250
La.-392	N½	87	2,500
La.-393	N½	88	2,500
La.-394	E½	97	2,500
La.-395	E½	107	2,500
La.-396	W½	107	2,500
La.-397	E½	115	2,500
La.-398	W½	115	2,500
La.-399	E½	116	2,500
La.-400	W½	116	2,500
La.-401	E½	127	2,500
La.-402	W½	127	2,500
La.-403	E½	128	2,500
La.-404	W½	128	2,500
La.-405	N½	183	2,500
La.-406	N½	185	2,500

EUGENE ISLAND

Tract	Part	Block	Acres
La.-407	NW¼	34	1,250
La.-408	W½	38	2,500
La.-409	All	39	5,00
La.-410	S½	40	2,500
La.-411	E½	43	2,500
La.-412	All	52	5,000
La.-413	All	54	5,000
La.-414	All	55	5,000
La.-415	All	56	5,000
La.-416	All	57	5,000
La.-417	All	61	5,000
La.-418	All	65	5,000
La.-419	All	74	5,000
La.-420	All	75	5,000
La.-421	All	78	5,000
La.-422	All	81	5,000
La.-423	All	82	5,000
La.-424	All	83	5,000
La.-425	All	86	5,000
La.-426	All	87	5,000
La.-427	All	96	5,000
La.-428	All	97	5,000
La.-429	All	98	5,000
La.-430	All	99	5,000
La.-431	All	100	5,000
La.-432	All	101	5,000
La.-433	All	102	5,000
La.-434	All	103	5,000
La.-435	All	104	5,000
La.-436	All	105	5,000
La.-437	All	106	5,000
La.-438	All	107	5,000
La.-439	All	108	5,000
La.-440	All	109	5,000
La.-441	E½	117	2,500
La.-442	W½	118	2,500
La.-443	E½	127	2,500
La.-444	W½	127	2,500
La.-445	W½	194	2,500
La.-446	E½	195	2,500
La.-447	W½	195	2,500
La.-448	E½	196	2,500
La.-449	W½	196	2,500

Tract	Part	Block	Acres
La.-450	E½	197	2,500
La.-451	W½	197	2,500
La.-452	E½	204	2,500
La.-453	E½	205	2,500
La.-454	W½	205	2,500
La.-455	E½	206	2,500
La.-456	W½	206	2,500
La.-457	W½	207	2,500
La.-458	E½	209	2,500
La.-459	W½	216	2,500
La.-460	E½	217	2,500
La.-461	W½	217	2,500
La.-462	E½	218	2,500
La.-463	W½	218	2,500
La.-464	E½	219	2,500
La.-465	E½	226	2,500
La.-466	E½	227	2,500
La.-467	W½	227	2,500
La.-468	E½	228	2,500
La.-469	W½	228	2,500

SOUTH PELTO

Tract	Part	Block	Acres
La.-470	E½	6	2,500
La.-471	All	15	5,000
La.-472	All	16	5,000

SOUTH TIMBALIER

Tract	Part	Block	Acres
La.-473	N½	32	2,500
La.-474	S½	32	2,500
La.-475	All	33	3,772.18
La.-476	All	51	3,772.18
La.-477	E½	53	2,500
La.-478	E½	64	2,500
La.-479	E½	68	2,500
La.-480	W½	68	2,500
La.-481	S½	85	2,500
La.-482	E½	127	2,500
La.-483	E½	136	2,500
La.-484	E½	150	2,500

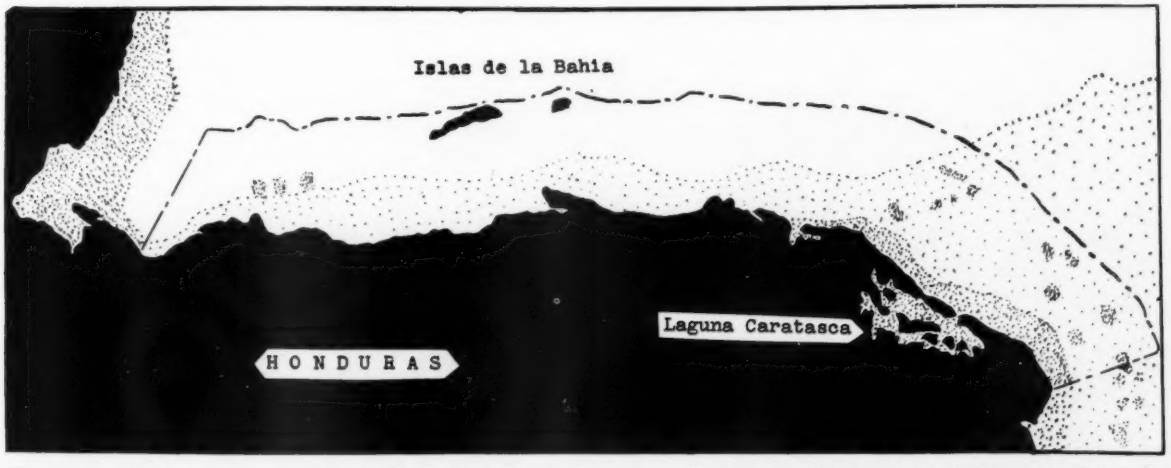
GRAND ISLE

Tract	Part	Block	Acres
La.-485	That portion on the outer Continental Shelf seaward from a line 3 geographic miles from the coast line	11	1,645
La.-486	E½	21	2,500
La.-487	W½	21	2,500
La.-488	That portion on the outer Continental Shelf seaward from a line 3 geographic miles from the coast line	24	2,770

WEST DELTA

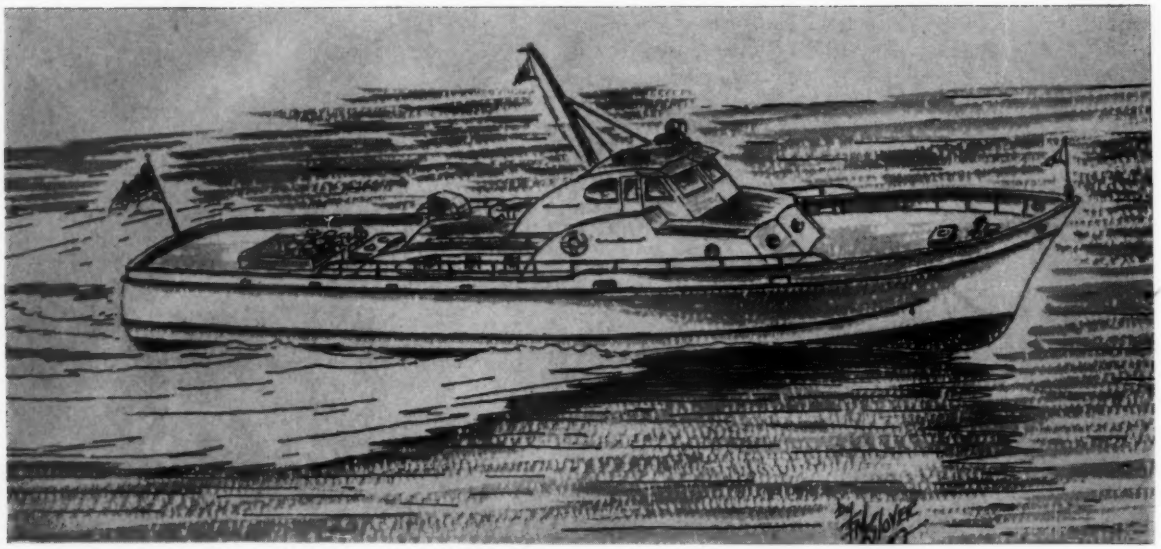
Tract	Part	Block	Acres
La.-489	That portion on the outer Continental Shelf seaward from a line 3 geographic miles from the coast line	23	1,800
La.-490	That portion on the outer Continental Shelf seaward from a line 3 geographic miles from the coast line	24	845

(continued on page 33)



Honduras offshore acreage recently acquired by Houston oilman John W. Mecom. Dot-dash line shows seaward boundary of concession, extending from Guatemala line on west to Nicaragua line on northeast. Heavily shaded area is less than 10 fathoms deep, lightly shaded area 10-100 fathoms deep. (See story page 34)

95 feet of SPEED COMFORT and VERSATILITY



Being built at Platzer Shipyard in Houston and will be available for lease this May

Cruising Speed in Excess of 18 MPH

Power - Twin tandem 6-110 GM Diesels - 1200 HP

- Designed to carry 30 or more passengers
- 30'x18' deck space on stern and 21'x10'x7' cargo hold
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(continued from page 31)

Tract	Part	Block	Acres
La.-491	That portion on the outer Continental Shelf seaward from a line 3 geographic miles from the coast line	26	3,300
La.-492	S½S½	28	1,250
La.-493	All	47	5,000
La.-494	N½	77	2,500
La.-495	N½	78	2,500
La.-496	N½	79	2,500
La.-497	All	80	5,000
	BRETON SOUND		
La.-498	All	55	4,994.55
La.-499	All	56	4,994.55
	MAIN PASS		
La.-500	S½	37	2,497.28
La.-501	S½	38	2,497.28
La.-502	All	39	4,994.55
La.-503	E½	40	2,497.28
La.-504	W½	42	2,497.28
La.-505	NW¼	57	1,248.64
La.-506	S½	57	2,497.28
La.-507	S½	58	2,497.28
La.-508	S½	59	2,497.28
La.-509	NE¼	59	1,248.64
La.-510	All	60	4,994.55
La.-511	All	62	4,994.55
La.-512	N½	63	2,497.28
La.-513	SE¼	63	1,248.64
La.-514	N½	64	2,497.28
La.-515	N½	125	2,497.28
La.-516	S½	125	2,497.27
La.-517	All	126	4,994.55
La.-518	All	127	4,994.55
La.-519	All	128	4,994.55
La.-520	All	129	4,994.55
La.-521	N½	139	2,497.28
La.-522	S½	139	2,497.27
	TEXAS		
	GALVESTON		
Tex.-78	W½	180	2,880
Tex.-79	NE¼	191	1,440
Tex.-80	S½	191	2,880
Tex.-81	SW¼	192	1,440
Tex.-82	N½	209	2,880
Tex.-83	N½	210	2,880
Tex.-84	W½	273	2,880
Tex.-85	S½	283	2,880
	HIGH ISLAND		
Tex.-86	N½	208	2,880

Alabama

Alabama Votes 6 Leagues As Its Historic Boundary

Alabama, most recent addition to the Gulf of Mexico lease scene, has joined other Gulf states in the long-enduring dispute over ownership of offshore acreage.

In House Bill 145, signed into law by Gov. James E. Folsom, the state places its historic boundary at six leagues (about 20.7 miles) from its shoreline. Texas, Louisiana, and Florida all claim only three leagues from their shorelines. Both Louisiana and Florida are presently disputing with the federal government, which claims their ownership ends at the three-mile line.

Alabama's Gulf of Mexico acreage, extending about 50 miles coastwise, failed to attract a single acceptable bid in the state's first offshore lease sale February 3. However, the state did lease 37,516 acres in Mobile Bay.

A second offshore lease sale has been announced by Conservation Director W. H. Drinkard, with all tracts within nine marine miles from shore. July 2 is deadline for bidding in the sale, which will feature blocks adjacent to those offered earlier.

About 339,000 acres will be up for lease.

California

Floating Rigs May Slash Drilling Costs Says Oilman

Floating rigs could cut the cost of 10,000-foot holes off the coast of California in half. And by the end of the year at that.

Olen W. Lane, vice-president and regional general manager for Continental Oil Company at Los Angeles made this prediction.

Cost of a 9-10,000-foot well would be $400-$500,000, Lane reported. This compares with $1 million from a stationary platform, he said.

U. S. Supreme Court Ruling Benefits Drillsite Owners

A U.S. Supreme Court ruling will benefit California owners of land sites from which tideland wells are directionally drilled.

In a 7-1 decision the court held that land owners receiving a share

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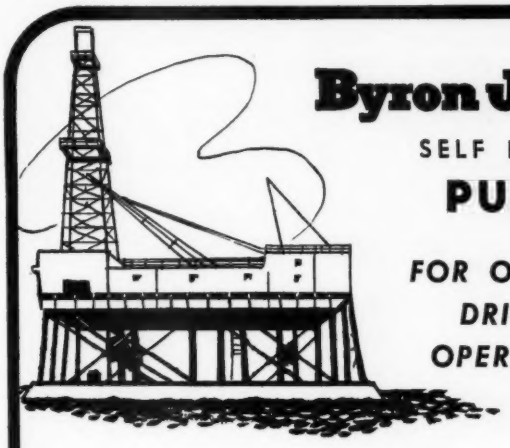

Byron Jackson

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   b. No Auxiliary Pumping Equipment
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(continued from preceding page)

of the profits from production—in return for use of their land as drillsites—are entitled to the depletion allowance.

Orange County Officials Grant Tidelands Contract

American Marine Exploration Company of Texas has received a contract from the Orange County Board of Supervisors to develop the area offshore from Orange County.

But the same acreage is claimed by the State of California and a legal battle may result.

American Marine is to pay a 16 2/3 percent royalty. The contract covers acreage out to the three-mile limit and excluding the area claimed by the city of Newport Beach.

Honduras

Honduras Marine Leases Bought By John W. Mecom

A Honduras lagoon may be marked for marine operations. Part of 50 million acres of that country recently acquired by Houston oilman John W. Mecom and others, Laguna Caratasca is under consideration for possible exploitation.

Much of the lagoon is shallow enough to permit use of a marshland drilling barge, and a recent wildcat in the Mosquito area is on solid ground just one-half mile from the edge of Laguna Caratasca. The wildcat was plugged and abandoned at 3,000 feet. Extensive gravity meter work has been done in the vicinity.

The Mecom property extends the entire length of the Honduras coastline, covering 14 million acres inshore with the rest submerged. With Mecom in the enterprise is Houston oilman Ernest Cockrell Jr.

The property was acquired from Compania Petroleria Hondurena, S.A., which retains 15 percent of the acreage if production is established. The Honduran firm includes a number of Honduras businessmen and a group of Texas oilmen, headed by David C. McCord, of Dallas, and including the estate of the late John Sullivan, of San Antonio.

Louisiana

Supreme Court Will Try Louisiana Tidelands Case

The Justice Department was granted permission by the U.S. Supreme Court on March 26 to file suit against Louisiana for the ownership of submerged lands beyond the three-mile limit. Louisiana, claiming lands out to three leagues off the coast, will have 30 days to file a reply with the Court.

The Supreme Court, by virtue of the Constitution, has original authority in cases where states are parties. This action of the Supreme Court is the first step in the standard procedure of the government's getting such cases into Court.

Earlier, Louisiana had requested that the case be tried in U.S. district court within the state, for convenience in presenting documents and witnesses.

John L. Madden, assistant attorney general for the state, said that district courts have concurrent jurisdiction with the Supreme Court in cases to which a state is a party.

Crowley-Mississippi River Pipeline Being Constructed

A 335-mile pipeline extension beginning at Crowley, Louisiana, will tap offshore and onshore gas re-

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serves in the lowlands of southern Louisiana to the mouth of the Mississippi River.

Named the "Muskrat Line," the new extension is being built for Tennessee Gas Transmission Company (TGT) by Williams Brothers Company, Grayco Constructors, Inc., the Houston Contracting Company, Associated Pipe Line Contractors, Inc., and the Collins Construction Company.

Construction began early in March and completion is expected in midsummer.

The route begins southeast of Kinder, where TGT has a compressor station, and skirts the coast to the mouth of the Mississippi.

Long Says More Senators Favor Three-League Line

Senatorial sympathy for Louisiana ownership to three leagues out may be growing, Governor-nominee Earl K. Long of Louisiana states.

Long said he understands at least a dozen United States senators have indicated they don't understand why Louisiana isn't entitled to the same boundary as Texas in the Gulf of Mexico.

Long has previously pointed out to Democratic presidential hopefuls that their views on the tidelands questions are going to count in Louisiana.

Texas

School Land Board Plans Lease Sale This Spring

A lease sale by the Texas School Land Board is slated this spring, Land Commissioner J. Earl Rudder has announced.

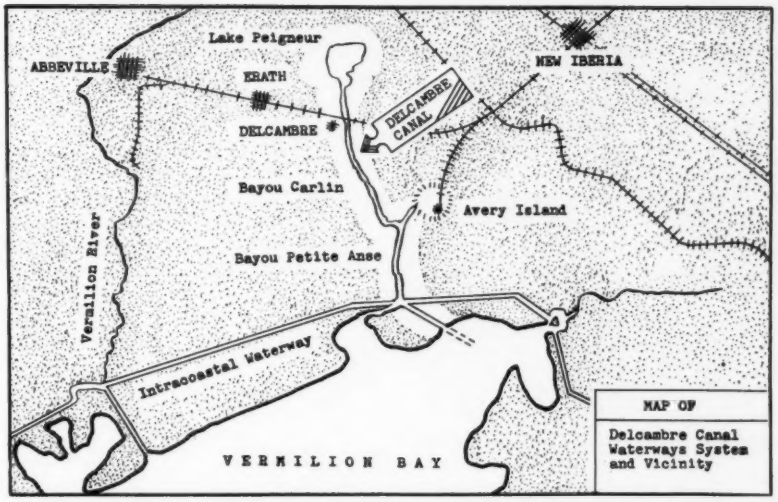
The board is willing to submit tracts in submerged and tidelands areas, uplands, and riverbeds.

Operators were asked to submit lists of land they would like to have offered by or before March 30, as well as suggest a date for the sale.

MR. GUS Mishap Delays Record-Breaking Wildcat

Shell Oil Company's projected record-breaking wildcat 63 miles off the Texas coast has been delayed by a mishap to **Mr. Gus,** mobile unit which was to have drilled it.

C. G. Glasscock Drilling Company's mobile unit damaged a piling while being towed to location in Federal Tract A-104 off Galveston.



Improvements proposed for the Delcambre canal system in Iberia Parish are 1) a channel 80 feet wide and nine feet deep in Bayou Petite Anse, 2) a channel 80 feet wide and nine feet deep in Bayou Carlin, and 3) a channel 40 feet wide and five feet deep between the Intracoastal canal and Vermilion Bay.

Waterways Improvements Sought

Need for Delcambre canal waterway system project told at Corps of Engineers hearing at Delcambre

AT A DELCAMBRE, LOUISIANA, Corps of Engineers hearing several hundred spectators heard testimony that proposed improvements in the Delcambre canal waterway system would benefit oil, shrimp, and other area industries.

The system includes bayous Tigre, Carlin, and Petite Anse and the Avery Canal. Proposed improvements would provide:

1) A channel 80 feet wide and nine feet deep at mean low Gulf tide in Bayou Petite Anse from the Intracoastal Canal to the north end of Avery Island, 6.1 miles.

2) A channel 80 feet wide and nine feet deep in Bayou Carlin, from the mouth to Lake Peigneur, 7.6 miles.

3) A channel 40 feet wide with a depth of five feet in Avery Canal from the Intracoastal Canal to Vermilion Bay.

The suggested project is planned to eliminate a bottleneck at low tide in the area around the Avery Canal leading to Bayou Carlin and Bayou Petite Anse, as well as solve other navigational difficulties.

Enlargement of Bayou Petite Anse would also allow greater tonnage movements of crude oil, equipment supplies, and salt products to and from Avery Island through more frequent use of larger barges and tugs.

The Delcambre Canal is a refuge for small craft during storm warnings — in one such warning more than 300 boats sought safety in the canal—and a turning basin and refuge are part of the proposed improvements.

Testimony before the hearing pointed out the potential danger of the present shallow channel to small craft.

Harry L. Mitchell, of Tidelands Terminal Company in Delcambre, one of the principal sponsors of the project, spoke at the meeting, as did Mayor Euda Delcambre. The mayor testified that 570 shrimp boats were damaged in the waterway in 1955 and that 500 of them were damaged because of shallow water.

Also speaking at the hearing were State Senator-elect Dr. G. A. Ackal and State Representative-elect J. Allen Daigre. There was no opposition to the proposed improvements in the Delcambre waterway system.

Testimony gathered at the hearing will be submitted to the U.S. Army Corps of Engineers for study, and if they approve the project it will be referred to Washington for further action.

State Owns to High Tide Mark, Says Appeals Court

The 10th Court of Civil Appeals of the State of Texas has ruled that state ownership of submerged acres extends to the point of highest tide.

The ruling was made in the case of J. W. Luttes, landowner, and Shell Oil Company, leaseholder, Vs. the State of Texas. Involved was about 4,000 acres of mud flat tidelands in Laguna Madre, south Texas.

Luttes claimed that gradual formation of the land had increased his holdings on Laguna Madre. The state asserted that the mud flats are part of the seashore, occasionally covered by sea water, and are therefore public domain.

The Court of Appeals upheld the decision of the 103rd District Court at Brownsville.

Union Oil of California Charters STANOLIND 50

Stanolind Oil & Gas Company's drill tender **Stanolind 50,** converted LST, is under bareboat charter to Union Oil Company of California.

The tender is off Louisiana drilling in Block 26 of the Vermilion Area, under a farmout from Stanolind to Union of California. Loffland Brothers is the contractor.

This is the barge
that drilled the world's deepest well!

Like so much other oil-marine equipment that has played an important part in establishing "notable firsts" in tidelands operations, the Keystone-Slaughter drilling barge which figured in the drilling of the Humble LL & E No. 1-L by Richardson and Bass, John W. Mecom, and Freeport Sulphur Co., was built by

"THE OIL INDUSTRY'S SHIPYARD"

Levingston

SHIPBUILDING CO. • ORANGE, TEXAS

Tribute Paid Industry For Part in Regulations

Tribute to joint government-oil industry efforts which resulted in safety regulations for offshore drilling structures was paid by U. S. Coast Guard Captain J. C. Wendland in San Antonio early in March.

Speaking before the Southern District meeting of the American Petroleum Institute production division, Captain Wendland said "The only effective solution to effective regulations is government-industry cooperation. The net results of this desirable attitude will be the setting of standards to insure safety without hindering industry."

Wendland termed a panel of advisors selected from industry to help write safety measures "the key to team work in the promotion of safety."

Washington

Navy Seeks Offshore Acres Interior Official Reports

Rumor that the U.S. Navy wants part of the federal acreage in the Gulf of Mexico as an oil reserve was repeated in a statement of Assistant Secretary of the Interior Wesley A. D'Ewart.

Representatives of the Navy, however, have said they are not seeking a federal reserve, despite requests for a large gunnery range in the Gulf of Mexico opposite Texas.

The range is not, they emphasize, an overture for an offshore reserve.

The Air Force already has a gunnery range covering parts of the West Cameron, East Cameron, and Vermilion areas.

In a talk to the national advisory board council for grazing D'Ewart remarked that Navy seeking for an offshore oil reserve is partly responsible for a delay in choosing a date for the next federal sale of offshore acreage. (It has since been chosen.)

D'Ewart said the Navy desires a "considerable acreage" but that he did not know how much.

Rumors have put Navy wants as high as 10 million acres.

An estimated 21 million acres in the Gulf of Mexico have been mapped for federal leasing.

"There are only two or three areas involved in the conflict currently, and we hope to iron that out and soon go ahead with a sale," D'Ewart said.

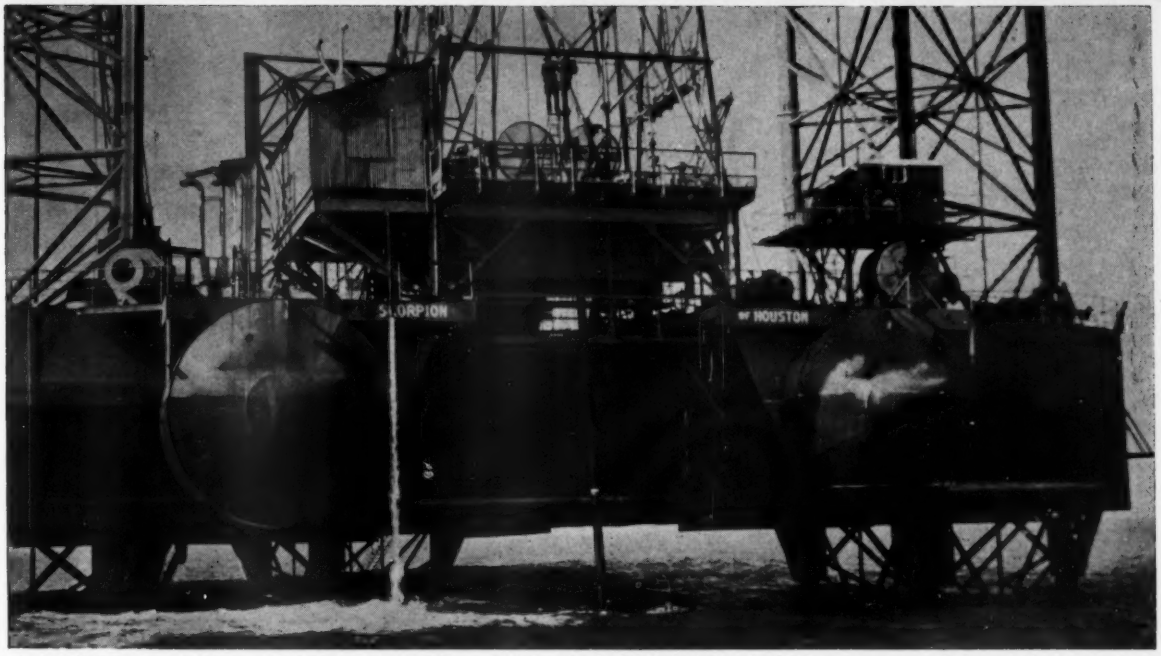
FIRST IN THE FIELD!

SPECIAL SECTION

Offshore

Marine Oil OPERATIONS Journal

ZAPATA'S MOBILE DRILLING PLATFORM



On first location in Texas State Tract 932 (S), well No. 58, SCORPION is raised above waves to drive conductor casing.

THE SCORPION

OFF the flat coastal plains of south Texas, the sea floor slopes gently out to the 100-fathom mark, where it plunges abruptly into ancient ocean deeps. On this flat shelf, beds of sedimentary rock thicken and dip seaward. For perhaps sixty miles off the mouth of Corpus Christi Pass, and lying shallowly beneath the unpredictable waters of the Gulf of Mexico, is a submerged area that holds vast promise, may hold a wealth of oil, and is part of a new marine oil frontier stretching from the Florida Keys to the Campeche Banks off Yucatan—and from there in long loops, in widening and narrowing bands, along the coast of Central America and South America to Trinidad and back up the two-thousand-mile chain of islands to Florida again.

This vast shelf area contains millions upon millions of acres marked as possible future marine oil provinces. Last week, a few miles off the sandy reaches of 100-mile-long Padre Island, a pioneering concept of offshore drilling was being put to test. Squatting over the waves like a navy-gray beetle, on three giant steel legs as tall as a ten-story building was a mammoth mobile drilling platform with a name like the dry-land taste of cactus and prairie dust. This was the **Scorpion,** rigging up to plunge whirling steel bits 10,000 feet through underwater strata in search of oil-bearing formations in the two-mile-deep Frio sands.

THE Zapata Off-Shore Company's drill barge "Scorpion" is a unique innovation among mobile drilling units. We feel confident that this type of mobile drilling unit will greatly aid in the development of offshore oil and gas reserves and we are proud to be the first company to use this unit in offshore drilling. Zapata has given the oil industry another pioneer idea to assist in the development of offshore reserves of oil and gas.

Standard Oil Company of Texas

On the following pages is the story of the **Scorpion,** and of the men who built the new drilling giant and took it to sea—the Zapata Off-Shore Company. It is also a story of other men and other companies for many individuals and companies contributed to the **Scorpion** in various ways, from inception of the idea to "spudding in."

Web Wilson Tools chosen for the revolutionary

ZAPATA OCEAN-GOING MOBILE DRILLING PLATFORM

We're glad to be aboard!

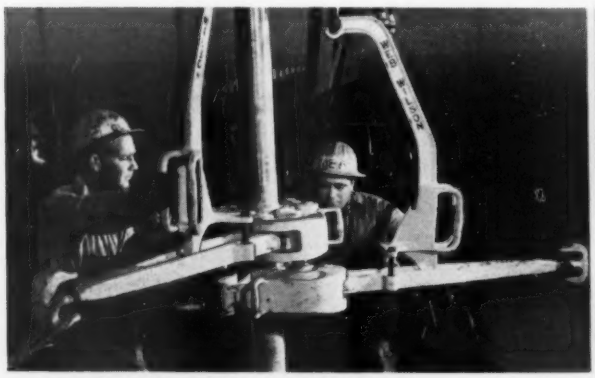
WEB WILSON is indeed proud to be so well represented on Zapata's new tripod drilling platform . . . for this unit represents an exciting new engineering and design concept, and we're sure that the same brand of thinking was reflected in the choice of tools and equipment. So our congratulations to the Zapata Off-Shore Company and R. G. LeTourneau, builders of the platform. It's a pleasure to be on deck!

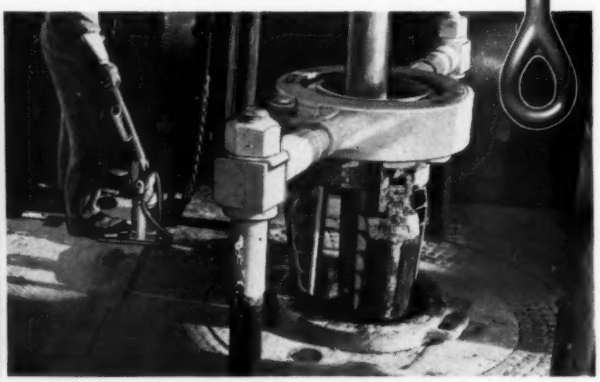
WEB WILSON 450-TON HYDRA HOOK

Largest of Hydra Hook's seven sizes, it will handle the deepest drilling assignments. Hydra Hook's oil cushion eliminates bouncing and provides controlled hydraulic spring action. Streamlined to eliminate hanging up, and compact to provide maximum operating space . . . Hydra Hooks are simple, strong and functional in design.

WEB WILSON FORGED LINKS

Forged from a single billet of high-quality steel, without welding, Web Wilson Links are normalized and heat treated to withstand the stress and shock of deep drilling. They meet all standard API specifications.





WEB WILSON AAX TONGS

Shown in action, these extra heavy tongs will handle a wide range of drill pipe by changing *only one* lug jaw. They feature Web Wilson's "spiral" hinge pin arrangement for greater safety and longer life. Perfect balance, and easy-operating safety latch speed operation.

WEB WILSON BALANCED POWER SLIPS

With a touch of his foot the driller sets or retracts the slips . . . this one man safely and easily controls both the stopping of the pipe and the setting of the slips. Web Wilson Power Slips feature balanced support, positive alignment and a minimum number of operating parts.

WEB WILSON OIL TOOLS, INC.

LOS ANGELES • DALLAS • NEW YORK • WORLD-WIDE EXPORT REPRESENTATION

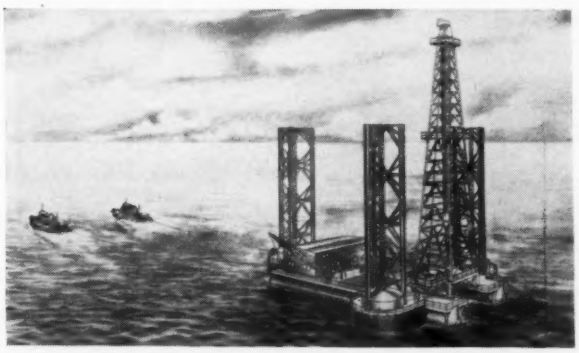
The ocean-going platform, shown here testing its 140-ft sea legs on the Mississippi River near Vicksburg, provides over a half acre of area for drilling operations storage of pipe and tools, offices, and air-conditioned living quarters for 42 men.

GOING UP!

. . . Portable Offshore Drilling "Island" is Raised, Lowered by Allis-Chalmers Diesel Power

Perched nine stories above the water is the $2 million offshore portable island built by R. G. LeTourneau, Inc. of Longview, Texas, for tidelands oil exploration and drilling.

This revolutionary giant eliminates the time and cost of building or rebuilding a structure at each new drilling site. Instead it is towed to the location, plants its feet firmly on the bottom of the Gulf, and hoists itself high above the waves to serve as a platform for drilling. When operations are finished, it simply pulls up its feet and is floated away.



As soon as drilling is completed at one location, the legs are raised and the structure towed to a new drilling site.

Dependability and over-all economy were prime considerations in choosing power for the critical task of lifting and lowering this tremendous 8,000,000-lb structure. Four Allis-Chalmers 8DAS-1125 supercharged diesels selected for the job (each producing 300-plus hp) drive generators to furnish electricity for the 63 motors on the three stilts.

The same qualities that fit Allis-Chalmers diesels for this application make them standouts in drilling work everywhere. Let your Buda Division dealer give you complete information.

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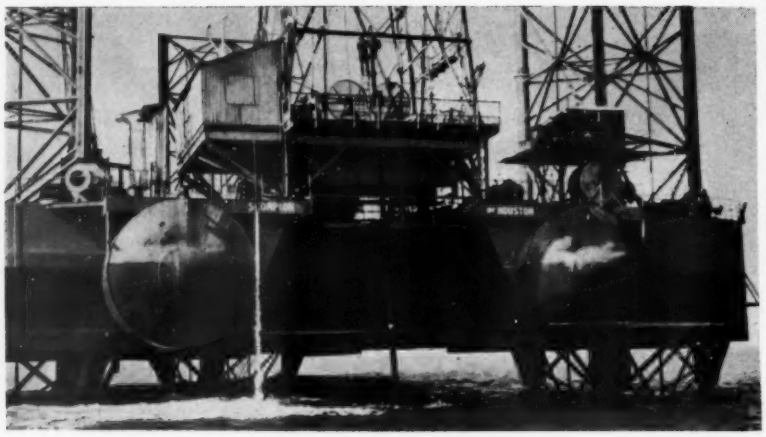
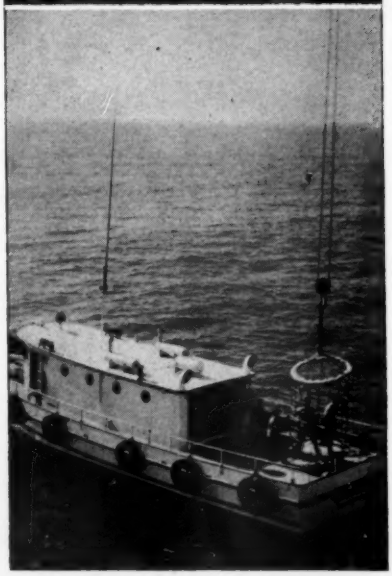
To board . . . .





Zapata crewmen use this

SAFE, DEPENDABLE ROPE CAGE*

Flexible - Light - Floatable

- **Light enough to be controlled on deck while loading**
- **Gives and rolls with the sea—strong and flexible enough to correct mistakes of crane operator**
- **Impossible for passengers to fall out or be thrown out**
- **Will float if spilled into sea—protects passengers from drowning by supporting them until rescued**

In transferring crews from shore to an offshore rig, **the most dangerous part of the trip is the last 50 feet!** You can guard against costly accidents and time-consuming delay by handling both personnel and light supplies from boat to rig platform in this safe, dependable rope cage.

PROVEN IN OVER 18 MONTHS OF CONTINUOUS ACCIDENT-FREE USE OFFSHORE

*Patent applied for

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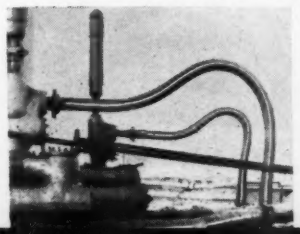
Built to go "all the way" for Zapata

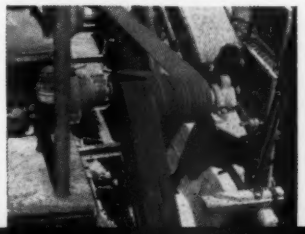
This *patented full-flow coupling* is just one of the reasons why Zapata Off-Shore Co. can be sure that Thermoid *Powerflex* Rotary Hose will stand up even in the most rugged operations. The forged steel coupling is an integral part of the cable assembly . . . permanently secured before the hose is wrapped and cured. It positively cannot leak or pull off for the life of the hose.

Powerflex is proof-tested to 5000 psi before shipment and will withstand the highest operating pressures. The *33 miles of high tensile steel wire* forms the cable that is precision wrapped and counter wrapped and imbedded in every length of Powerflex. Oil and abrasion resistant Neoprene tube and cover are reinforced with impregnated multi-ply woven fabric.

Order Thermoid Powerflex, Mud Hose, Multi-V Belts and Brake Blocks from your nearest supply store or Thermoid warehouse.
Warehouses: Houston, Texas, Oklahoma City, Okla., Casper, Wyo., Los Angeles, California

Thermoid also makes Suction and Discharge Hose • Multi-V Belts





Thermoid

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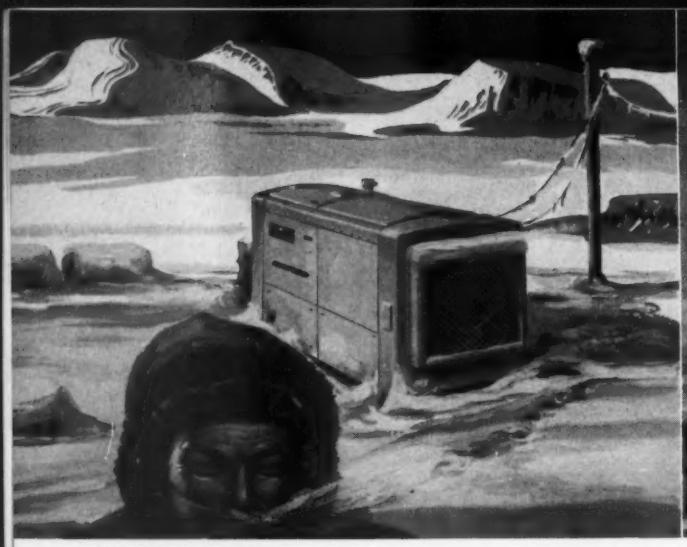


TEMPERATURE EXTREMES — Hundreds of Stewart & Stevenson Diesel-powered generator sets are operating inside the Arctic Circle where temperatures drop below —70° F. and in the South Pacific where temperatures exceed + 120° F.

SEVERE DUST — Stewart & Stevenson-supplied drilling engines and pumping engines have been operating successfully for years not only in some of the worst parts of the "Dust Bowl" but also in Desert Regions of the Middle East.

What is your

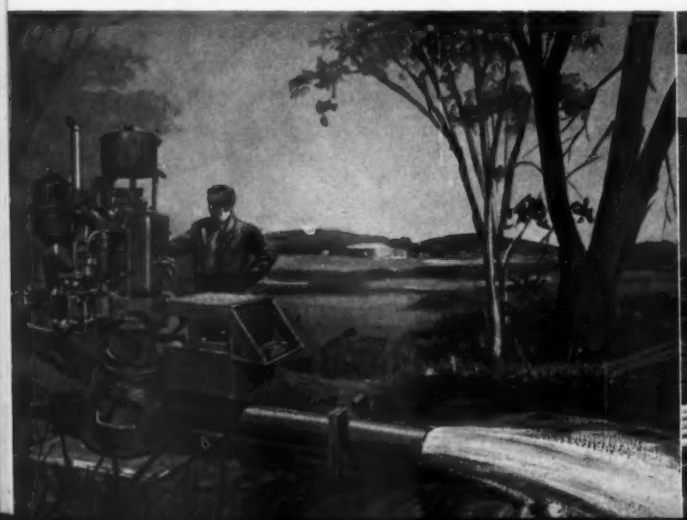
Why experiment with unfamiliar power problems — when you can take full advantage of the experience and know-how of the Nation's Largest Distributor of Diesel Engines?

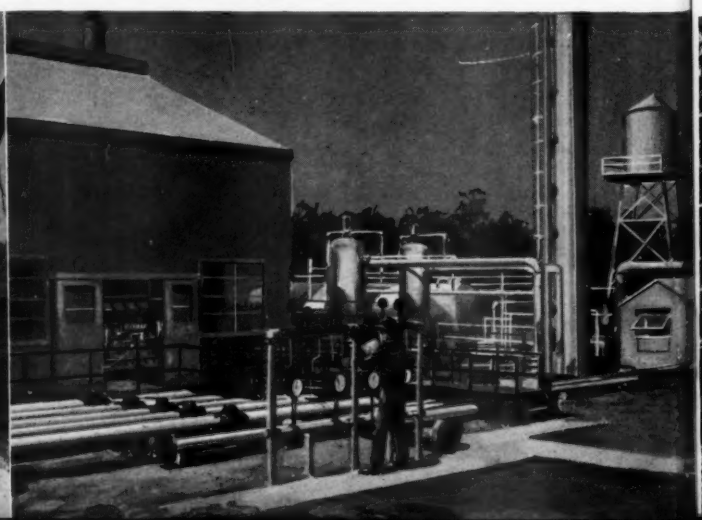
The correct selection of an engine or generator set can be a tricky problem if it is not based on sound and practical experience rather than theory.

When you face an application problem, don't experiment when you can be sure! Besides the advantages of practical application knowledge, Stewart & Stevenson equipment usually costs far less in the final analysis than most other equipment.

You don't take chances when you deal with Stewart & Stevenson. There is **one** source and **one** responsibility for all your power requirements. Call us and let our experience keep you out of trouble.

CRAMPED QUARTERS — Stewart & Stevenson engineers have frequently found ways to install more powerful engines in cramped engine rooms as well as other applications where space conservation is of prime importance. This Stewart & Stevenson "Vertical" application of the General Motors Diesel is a typical example of how Stewart & Stevenson ingenuity saved space, increased efficiency and in addition actually cost less to buy.





EXPLOSION HAZARDS — Successful Stewart & Stevenson engine installations have been made in hazardous areas around refineries and gas processing plants. Stewart & Stevenson engineers are thoroughly familiar with explosion and vapor-proofing in the design of switchgear and other electrical components.

MARINE PROBLEMS — For years, Stewart & Stevenson has been dealing with the corrosive and troublesome aspects of sea water, supplying engines and generator sets for offshore service boats, fishing boats, tugs, and other craft working in the waters of the Gulf Coast.

HIGH ALTITUDES — Stewart & Stevenson drilling engines and generator sets are operating successfully at altitudes in excess of 12,000 feet in the Rocky Mountain Area as well as other remote locations throughout the world.

power problem?

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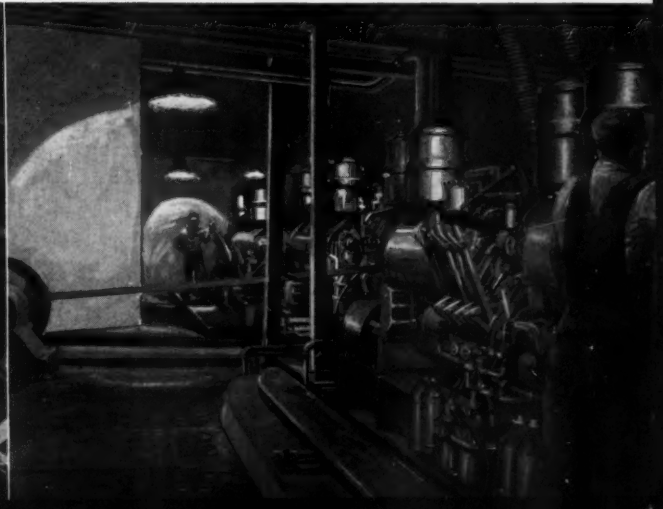
ELECTRICAL DESIGN — Stewart & Stevenson has sold more Diesel generator sets in more different types of applications than any other distributor of Diesel engines in the nation. Units are operating in temperatures that range from — 70° F. to + 130° F. and at altitudes that range up to 12,000 feet.

FUEL SELECTION — Complicated fuel conditions are no problem to Stewart & Stevenson engineers. The line of engines offered by Stewart & Stevenson cover all types of fuels such as butane, natural gas or diesel fuel and Stewart & Stevenson's experience in burning inferior types of fuels such as heavy crudes has been extensive.



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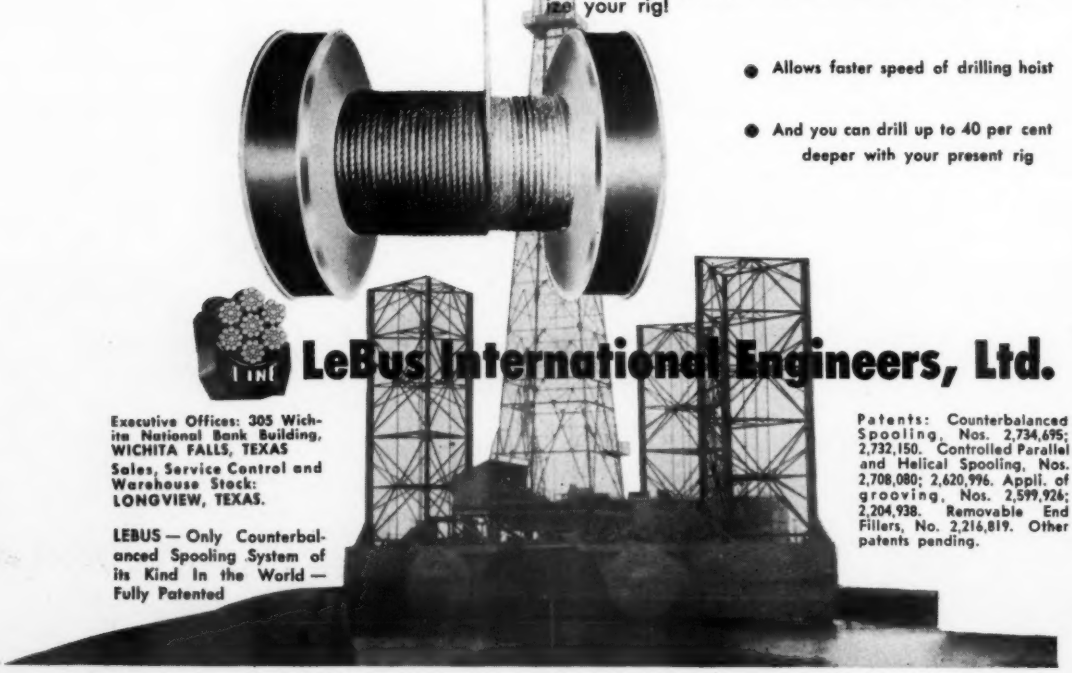
LeBus is proud to be among the manufacturers contributing to the great Zapata Mobile Offshore Rig. With over 2500 installations saving the oil industry some 18 million dollars yearly in wireline and operating time alone, we feel the Zapata installation is further proof that *LeBus Counterbalanced Spooling* is a necessary requirement on every drilling hoist. Notice how many rig drums these days are LEBUS SPOOLED. Maybe you too will want to fully modernize your rig!

- Allows faster speed of drilling hoist
- And you can drill up to 40 per cent deeper with your present rig



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LEBUS — Only Counterbalanced Spooling System of its Kind In the World — Fully Patented

Patents: Counterbalanced Spooling, Nos. 2,734,695; 2,732,150. Controlled Parallel and Helical Spooling, Nos. 2,708,080; 2,620,996. Appli. of grooving, Nos. 2,599,926; 2,204,938. Removable End Fillers, No. 2,216,819. Other patents pending.

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Long years of experience, continuous development and engineering "know-how" provide a drilling mast recognized by its performance for ruggedness, dependability, efficiency and adaptability.

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Underside of SCORPION, showing three huge tubes and the corrugated bottom and drilling slot wall which give the unit structural strength.

How **works**

Design and Operation

By DAVID G. WALKER
New Equipment Editor

THE NEW MOBILE drilling platform **Scorpion,** designed and built for Zapata Off-Shore Company of Houston by R. G. LeTourneau, Inc., of Longview, is rigging up to drill an offshore well for Standard Oil Company of Texas in Gulf of Mexico waters 46 feet deep.

Location for **Scorpion's** first try is in State Tract 932, about five miles north-northeast of the operator's Chevron field. Proposed depth is 11,500 feet.

The unit that will drill the well is remarkable in that a simple geometric principle gives it significant engineering and economic advantages. While the initial location is in relatively shallow water, **Scorpion** becomes the third mobile unit built capable of "breaking" the 40-foot barrier—and of drilling in water depths as great as 80 feet.

When **Scorpion** hoists its 4,000-ton bulk on three trussed steel legs, so that the drilling deck towers 40 feet above the water, it is taking advantage of a concept as old as engineering and mathematics: Namely, that three points determine a plane.

Its simplest example is the three-legged stool versus the four-legged chair. The chair wobbles—the stool doesn't.

Because **Scorpion** has only three legs, each leg will always carry its allotted load if the platform is kept level. Unlike the four-legged chair, the **Scorpion** has no leg "loafing." The resulting constant weight distribution eliminates:

1) Stresses on the hull caused by a leg failing to support its allotted load.

2) Much of the need for machinery realignment.

In operation . . . The legs of the platform are electrically raised and lowered—a startling innovation in itself. The platform, legs elevated, is towed to location. When the unit is positioned on location, the legs are lowered to the ocean floor. The platform then climbs the legs. When it is approximately 40 feet above the water, it is levelled and drilling operations begin.

When locating, the rapid raising of the platform, one foot a minute, means **Scorpion** spends minutes instead of the usual hours in the "critical period" position—from when the legs are on bottom to when the barge is out of wave action.

Basic structural members . . . Forming the basic barge structure are three huge metal tubes of welded

(continued on page 49)

Intersection of two of three gigantic tubes which are major structural members of Zapata Off-Shore's mobile platform.

Corrugated steel, left, strengthens the new unit.

STAIRCASE FOR 8 MILLION POUNDS

This and eight other great steel gear racks make a 140-foot stairway . . . on which the LeTourneau *Mobile* Offshore Platform raises itself from water level to become an island of steel for offshore operations. Traveling on the gear racks are 63 heavy steel pinions, each driven by a powerful LeTourneau Electric Motor and Gear Reduction. Result: a powerful and positive electro-mechanical system which raises and lowers the giant platform with almost the simplicity of operating a passenger elevator.

The Mobile Platform built for Zapata Off-Shore Company is typical of LeTourneau design ingenuity . . . in this case applied to the problem of quick mobility for relocatable marine installations. LeTourneau creative engineering and manufacturing skills may provide a similar answer for your BIG job problems . . . or may open up entire new work operations. Send us a resume of your requirements for a confidential analysis by LeTourneau engineers. No obligation on your part, of course.

LeT

How SCORPION Works . . .

(continued from page 47)

stressed-skin construction and a center section of corrugated bottom design. The tubes, one on the port side, one on the starboard, and one aft, are welded to the center section. This barge hull is compartmentalized with bulkheads, watertight doors, and decks for work and storage areas.

The stressed-skin tubes are integral structural members. By employing tubular and corrugated design elements, the all-welded platform has maximum strength per unit weight with a minimum of internal bracing. The builder feels that the design far exceeds Coast Guard requirements in regard to fundamentals of construction as to double bottoms, watertight compartmentation and a double side wall provided by the side tubes.

Dimensions . . . The overall length, including the aft spud housing, is 185 feet. Maximum width, including the two side spud housings, is 150 feet. The depth of the hull is 20 feet and draft is approximately 11 feet 6 inches, fully loaded. Displacement is 4,000 tons and dead weight 2,000 tons. The pipe rack, located on the main deck, is 80 by 60 feet.

Storage space . . . Ample space below deck is available to store 1,360 barrels of wet mud, 11,500 sacks of dry mud and cement, 1,000 barrels of potable water, 4,000 barrels of drilling water and 1,000 barrels of diesel fuel. Additional space is provided on the main deck for 1,500 to 2,000 sacks of bulk mud.

Drilling equipment considerations . . . Most of the heavy drilling machinery is located below deck under the pipe rack. This was done primarily for economy of space and provides the platform with even greater stability when under tow.

Having the drawworks on the same side of the derrick as the pipe rack is different from most drilling rigs. But the advantages of greater stability and economy of space far exceeded the problems of altering the equipment to meet this condition.

Stiffener plates welded to the underside of the machinery deck reinforce load points for the heavier equipment. All stationary machinery is welded to the deck to save on weight and space.

Movable derrick . . . Centered at the forward end of the barge is a slot 24 feet wide by 28 feet 3 inches deep over which stand the derrick substructure and derrick during drilling operations. The Lee C. Moore derrick and substructure can be skidded 30 feet aft as one unit, off the slot and onto the main deck, to provide well clearance when the platform is lowered into floating position. Having the derrick further aft also provides the barge with greater stability under tow.

To accomplish the skidding of the derrick and substructure, mud, water and control lines are disconnected, rat and mouse holes are lifted out, and bolts removed; the derrick assembly can then be skidded back on tracks welded on the main deck.

Towing . . . The tow from the builder's shipyard in Vicksburg, Mississippi, down the Mississippi River, was arranged by G & H Towing Company of Houston, which then brought the bare platform from New Orleans to Galveston for final outfitting. G & H also towed the **Scorpion** to its first offshore drillsite. The unit proved stable under tow and exhibited no tendency to yaw.

The entire unit is insured by Johnson and Higgins of New York City.

Why OIL companies buy insurance through J&H

The special *risk characteristics* of the oil industry—insurance problems connected with drilling, refining, storage, pipeline and tanker operations—are thoroughly familiar to the J&H staff. And continuing service to leading petroleum companies keeps us in touch with the industry's changing needs.

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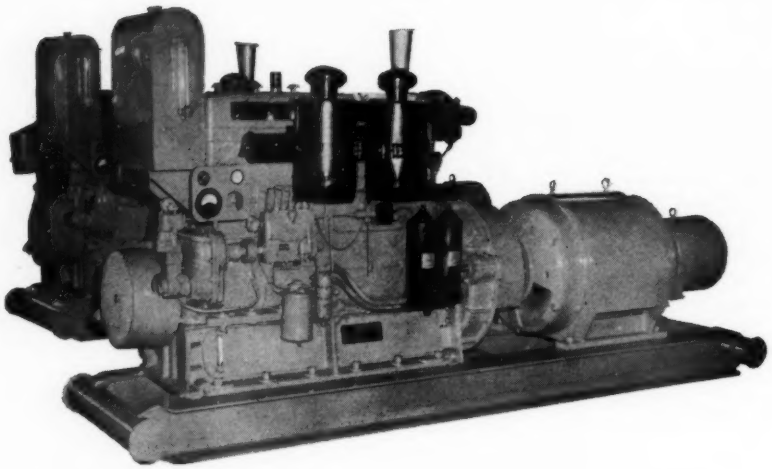
On the mobile drilling platform "Scorpion"

POWER by REAGAN

WAUKESHA

Model NKDBS Turbo Charged Full Diesel Engine Driving Electric Machinery, 150 KW 1200 RPM A-C Generators, on Zapata Off-Shore Company's "Scorpion"



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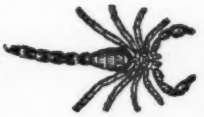
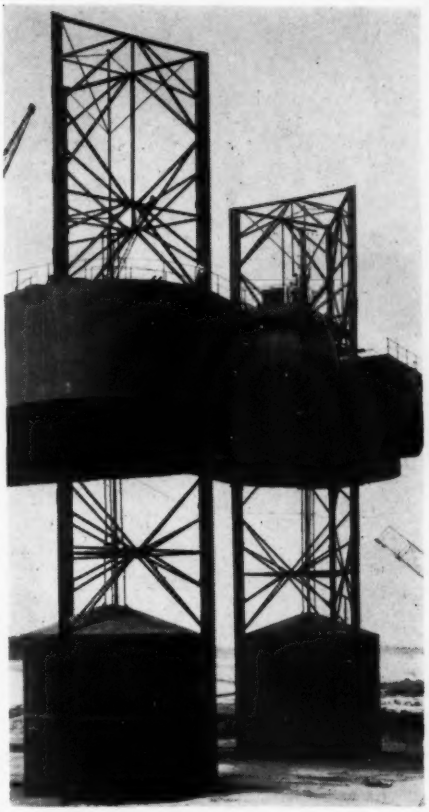
What holds  up

Three Steel Legs

Electric motors raise and lower Zapata Off-Shore's new mobile unit as fast as one foot a minute



Open design, truss-braced legs provide strength, offer minimum resistance to waves.

THREE TOWER-LIKE spud legs, 140 feet tall, give **Scorpion** a new and startling look among the mobile monsters of the Gulf. The legs are of open design and truss-braced tubular steel for stress loads, offering minimum resistance to wave action. These three columns hold the crews and several thousand tons of equipment 40 feet above the Gulf's surface. They are the rig's most distinctive feature.

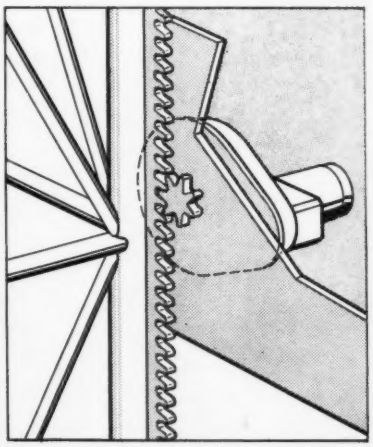
The legs are designed to carry a combined load of 4,500 tons and to stand winds up to 120 mph. They are triangular in cross section, measuring 34 feet 4 inches equilaterally. Each edge of each leg is notched from top to bottom, forming the rack of the rack and pinion mechanism used to raise and lower the legs and platform. The bottom section of each leg is a cylindrical pontoon tank 32 feet high and 35 feet in diameter and is called the spud cylinder.

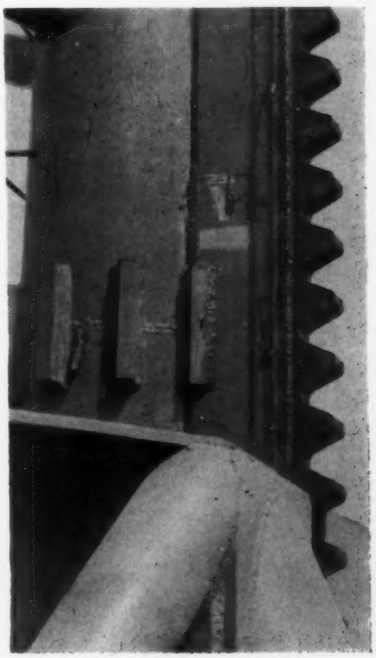
Raising and lowering . . . Seven 25 hp electric motors of special LeTourneau design supply power to each notched edge through the pinion assembly. Since each leg has three notched edges, there are 21 electric motors per leg, making a total of 63 motors.

These high-torque, reversible motors have integral motor-load brakes that set mechanically when electrical power is cut off and release electrically when power is applied. Hence, the motors serve as the raising, lowering, braking and locking device for the legs and platform. Motors are accessible through watertight hatches on deck. Spud and platform movement is controlled by electric switches at a central control panel.

Generating system . . . Four Allis-Chalmers 8DAS-1125 supercharged diesels of 300-plus hp each are the prime movers for the four 120 cycle 300 volt LeTourneau generators which, in turn, run the 63 gearmotors. This generating system also furnishes electricity to operate the

(continued on page 54)





Sixty-three 25 hp electric motors in watertight wells, as shown at left, provide power through reduction gears to the rack and pinion arrangement, shown above, which gives movement to legs and platform. Note that reinforcing bars are placed around main welds on legs, at right.

This Ocean-Going

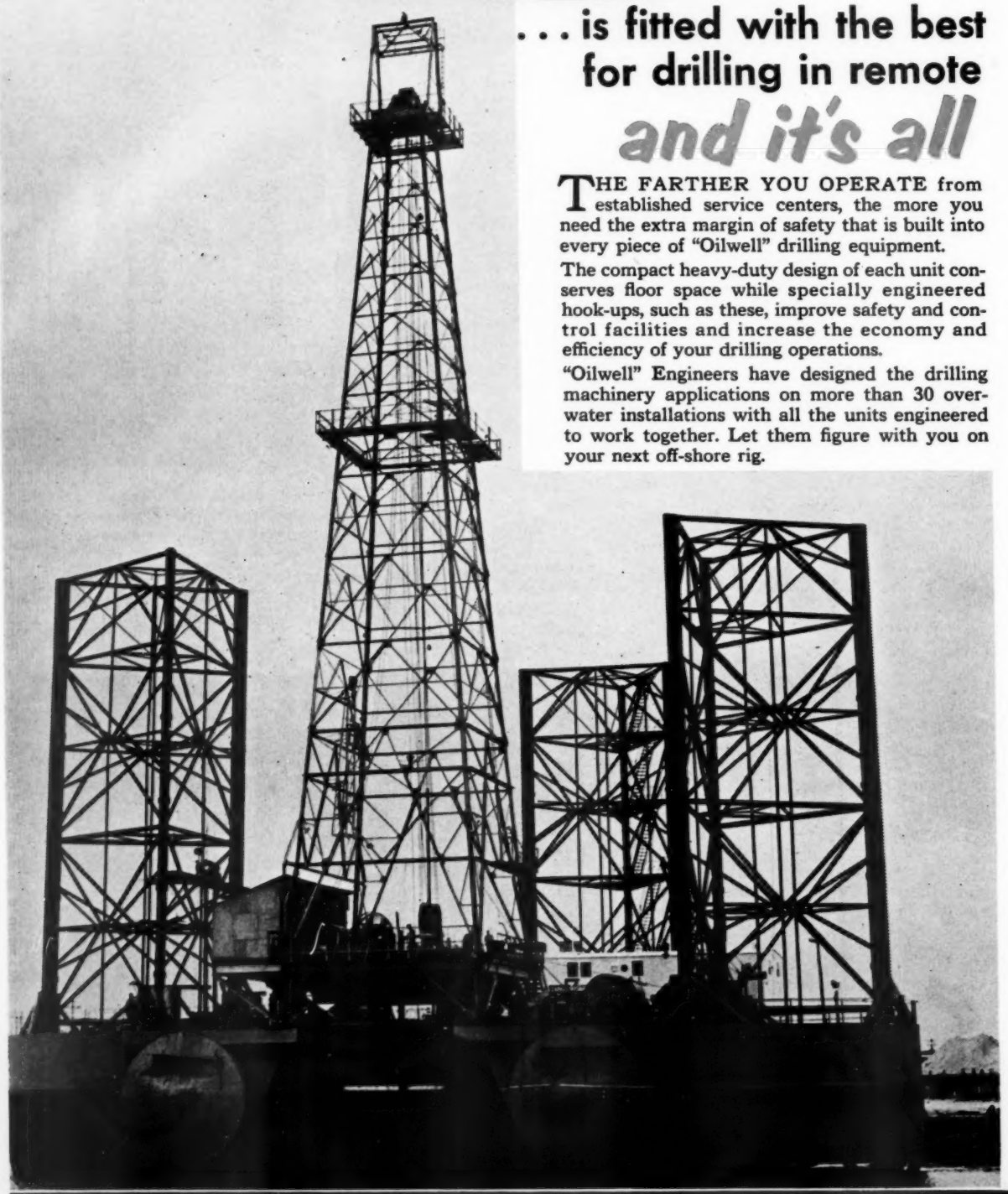
. . . is fitted with the best for drilling in remote

and it's all

THE FARTHER YOU OPERATE from established service centers, the more you need the extra margin of safety that is built into every piece of "Oilwell" drilling equipment.

The compact heavy-duty design of each unit conserves floor space while specially engineered hook-ups, such as these, improve safety and control facilities and increase the economy and efficiency of your drilling operations.

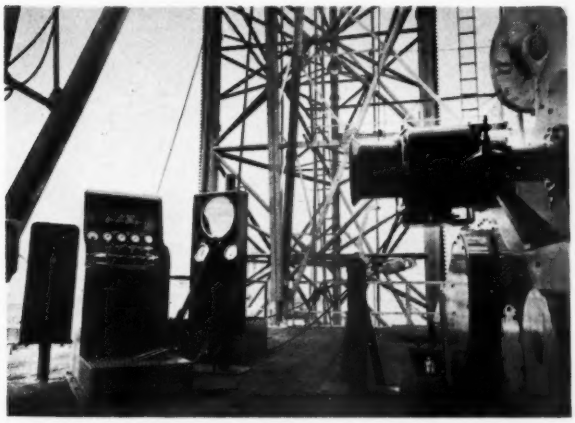
"Oilwell" Engineers have designed the drilling machinery applications on more than 30 overwater installations with all the units engineered to work together. Let them figure with you on your next off-shore rig.



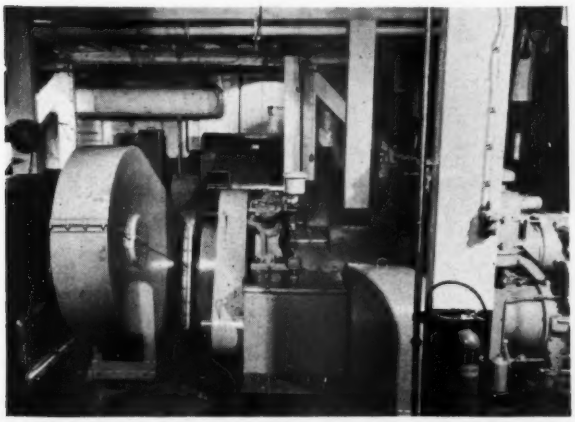
UNITED STATES STEEL

Mobile Drilling Platform

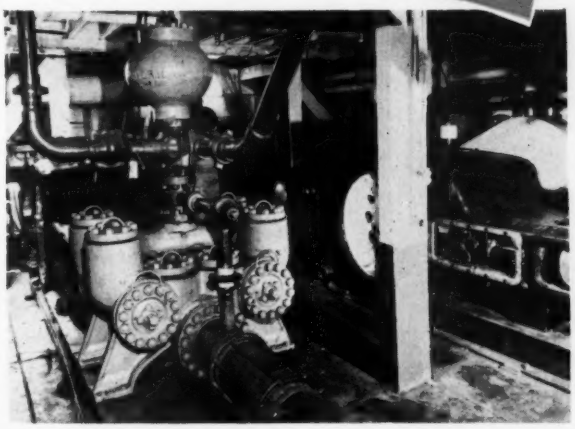
equipment you can buy off-shore locations "Oilwell"!



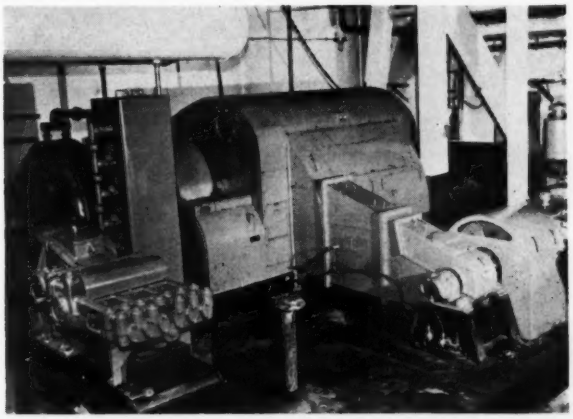
From this derrick-floor console, the driller controls the engines, pumps, automatic feed control, and hoisting facilities (all located below deck) as well as catworks controls for the rotary table and catheads. An operator at the catworks is needed only for sand line spooling.



The No. 96 Draw Works is powered by a No. 1500 Four-Engine Drive and is located in the hull, protected from salt spray. Weight and space are saved by using deck-pad mountings instead of skidwork. Clutches are gap-mounted to facilitate replacement.



Two No. 818-P Slush Pumps provide ample volume-pressure capacity for deepest drilling. Their narrow width and low weight per horsepower, make them perfect for compact over-water work.



The No. 15 Drilling Control provides close and automatic regulation of weight on the bit. This not only increases penetration rates but also affords unique advantages in directional drilling common to off-shore operations.

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UNITED STATES STEEL

Three Steel Legs . . .

(continued from page 51)

two deck cranes and the three anchor windlesses.

Maximum speed for raising and lowering each leg is three feet per minute. In normal operation speed is one foot per minute. The legs are raised or lowered only one at a time —to move all three spuds at once would require:

1) A gear ratio of 3,000 to 1 instead of the present 1,000 to 1—thus reducing the speed to one-third of the present, fast rate, or

2) Almost tripling the power system output.

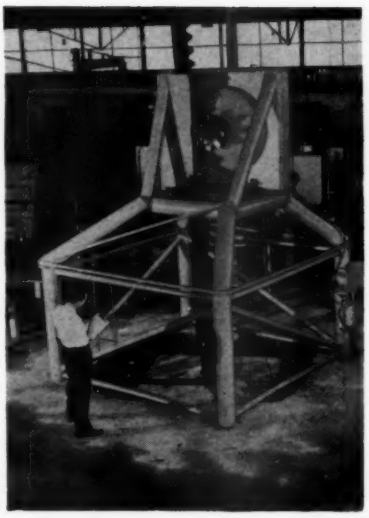
Spud cylinders . . . The three spud cylinders at the ends of the legs are the principal anchoring device when on location. The bottoms of the spud cylinders are concave. When they are lowered into position and sink into the ocean floor, this concavity, together with the sides of the cylinder, gives the rig its lateral stability.

The hollow interior of the spud cylinder is not used for storage but is filled with salt water when drilling. Each is equipped with a sea chest on the side and a vent on top to ensure complete filling. The gear racks of the legs extend onto the sides of the spud cylinders to allow raising them into the spud well housing on the sides of the barge when being towed. All parts of the spuds, except the bottom ten feet of the spud cylinders, can be serviced completely.

Jetting action . . . Drill water, under pressures of 50 psi or more, provides the **Scorpion** with a powerful jetting effect for withdrawing the legs from the mire of the ocean floor. A five-inch pipe, connecting with the drill water system, runs to the bottom of the spud cylinder. Three spider-like two-inch lines, 120 degrees apart, then carry drill water to two-inch, full opening valves located on the bottom rim of the spud cylinders. For additional jetting action, another opening has been placed in the center of the concave section, making a total of four outlets per spud.

Advantages . . . The legs lend speed and ease to locating. The independent spud action permits quick, convenient levering of the platform at any time. The legs have lighter structural weight for a given strength, allowing greater payload.

Being of large diameter, the spud is less susceptible to structural damage when "touching down."



Lifting components on Zapata Off-Shore's mobile unit were first tested on the "Texas Yo-Yo" test stand at the LeTourneau plant in Longview, Texas. The rack and pinion arrangement lifted and lowered 70 tons of steel billets about once every minute, day in and day out. The stand has played an important role in developing and testing gear racks, motors, brake systems, and other components in LeTourneau equipment.

Serving the Gulf Coast for 34 Years

On the Drill Barge "Scorpion" . . .

Housing unit completely wired by Electric Supply Company! Installations include:

1) Air conditioning unit for entire quarters
2) All electrical wiring
3) Central control panel
4) Completely electrical galley

ELECTRIC SUPPLY CO.

"for the marine and offshore industry"

- Complete stock of marine electrical supplies
- Completely equipped shop for servicing motors, generators, etc.
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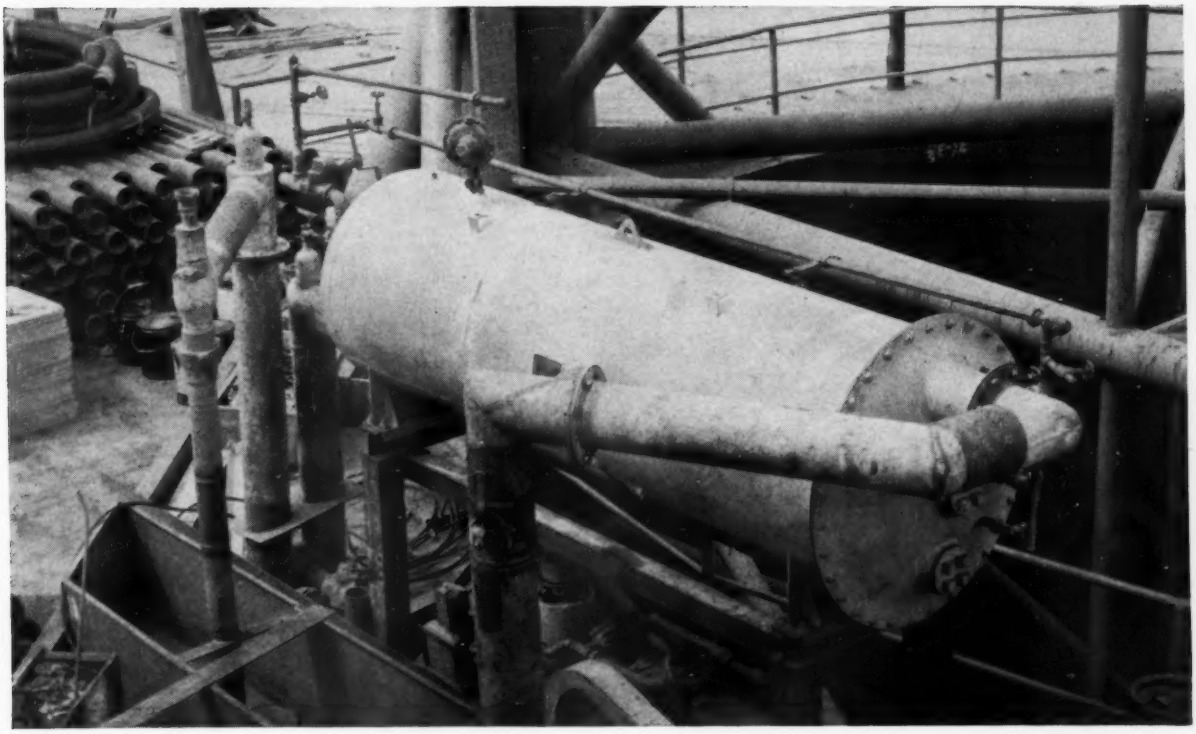
- 24 hour service, any time, anywhere.

Store Phone: 5-6351 — 2312 Mechanic St. Galveston, Texas — Night Phone: 3-5202 or 5-5247

Backed by 34 Years of Experience

Like most other offshore platforms...
"The Scorpion" is fitted with a
SWACO D-GASSER



Congratulations to Zapata, LeTourneau and Standard of Texas for their respective parts in making "The Scorpion" possible.

Standard of Texas, like the operators of most other offshore platforms, have installed a SWACO D-Gasser as part of the mud system.

The added safety of having a D-Gasser is especially important on offshore locations both for the sake of the crew and the investment.

When an operator also considers that the D-Gasser reduces both mud costs and rig time it is easy to see that it is an economy, as well as a safety feature. If it saved only 1½ days rig time per year, the entire lease price would be paid.

If you operate in areas where high pressure gas is encountered you will want the safety and economy that only a SWACO D-Gasser can offer. Get full information from a SWACO representative right away.

SWACO

SALT WATER CONTROL Inc.

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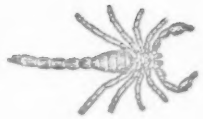
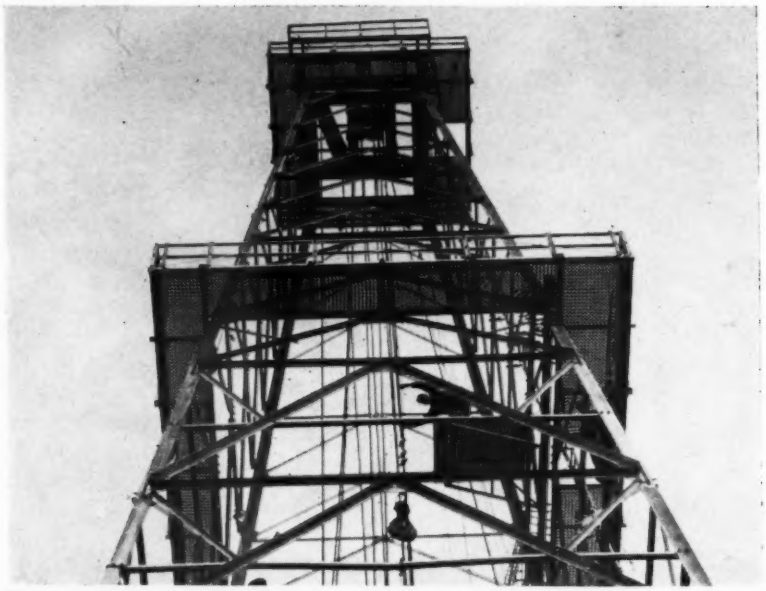
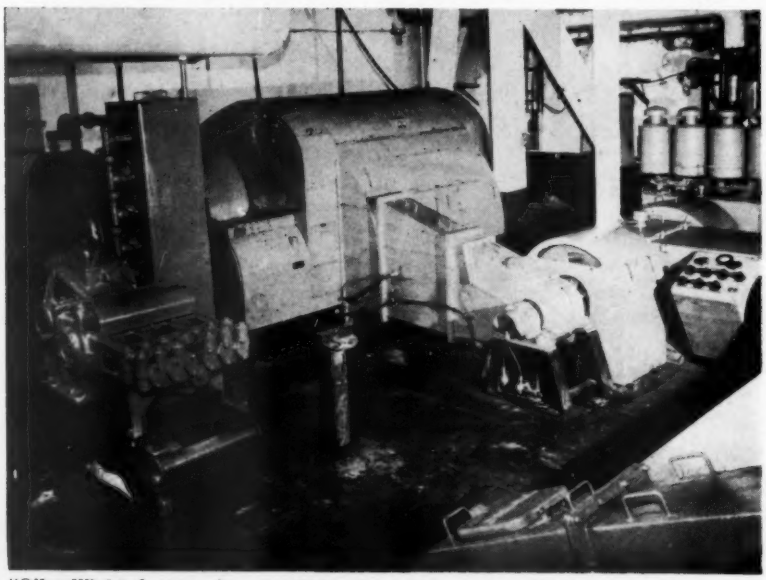
What  works with

Drilling Equipment

- **The drawworks, most powerful made by "Oilwell," are located offcenter**
- **Cathead and rotary are independent of the main engines for power**



The Lee C. Moore designed derrick, 140' x 30' and with a 550-ton API capacity.



"Oilwell" 96 drawworks, one GM twin 6-110, mud control panel, and gear reduction box, left.

ZAPATA Off-Shore Company's Scorpion has the most modern and efficient equipment with some unusual alterations made to meet specific needs.

The drawworks, the most powerful made by "Oilwell," is located off center.

The cathead and rotary are independent of the main engines for power.

The brake is mechanically connected to the drawworks.

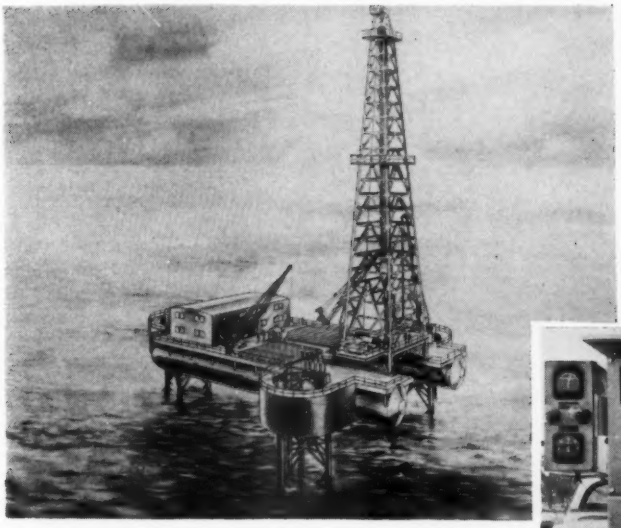
Other changes have been made in the high depth potential (past 16,000 feet) drilling equipment, which was installed and altered by Oil Well Supply Division of United States Steel Corporation.

Derrick . . . A Lee C. Moore designed derrick, 140 feet by 30 feet, has been placed aboard the **Scorpion.** The angle iron structure has a 550-ton API capacity. The substructure, also of Lee C. Moore design, measures 30 feet by 10 feet, with a 700-ton corner load, 300-ton casing and 150-ton setback capacity.

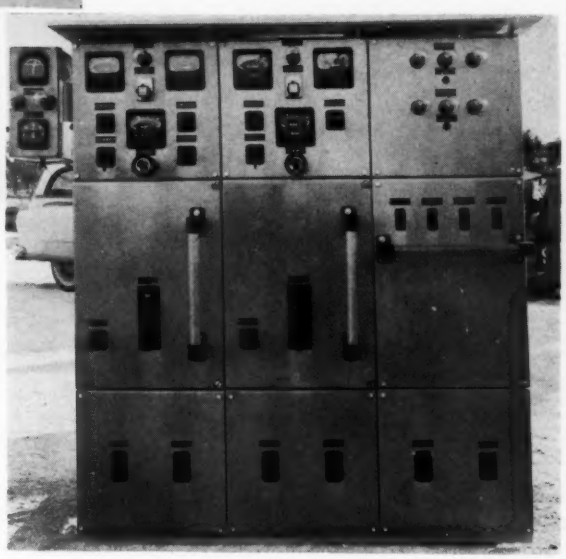
Main deck drilling equipment . . . A catworks, completely independent of the main compound for power, is a modified "Oilwell" 52-T drawworks. Supplying power to the catworks are twin tandem GM 6-110's with torque converters rated at 541 hp; located on the drilling platform, the engines were furnished by Stewart & Stevenson of Houston. This self-sufficient unit operates the 16,000 feet of 9/16-inch sand or coring line, the cathead and the "Oilwell" 26-HD rotary.

Traveling equipment are standard items: Web Wilson 450 Hydra-Hook, "Oilwell" S6-400 swivel, "Oilwell" 480 traveling block which can be strung up with twelve 1 3/8-inch lines, and "Oilwell" 500 crown block. Web Wilson also furnished the tongs, power slips, and forged

(continued on page 59)



ZAPATA OFF-SHORE COMPANY'S
OCEAN-GOING MOBILE
DRILLING PLATFORM



NERVE CENTER
OF THE
SCORPION

Out in the lonely Gulf, remote from land-based services and facilities, "down time" can be doubly expensive . . . That is why so many marine oil operators have come to rely on McIntosh for dependable electrical installations.

Whatever your needs, you can be sure if it's installed by McIntosh Electric. The best in materials and trained personnel assures you the maximum in trouble-free service.

THE ELECTRICAL INSTALLATION ON THE SCORPION INCLUDES:

- A tailor-made switchboard built especially for the platform by McIntosh Electric.
- All power panels built by McIntosh Electric
- Hose McCann telephone system
- R & S Marine Fixtures
- All electrical power wiring*

*Exclusive of all raising and lowering equipment

24-Hour Service

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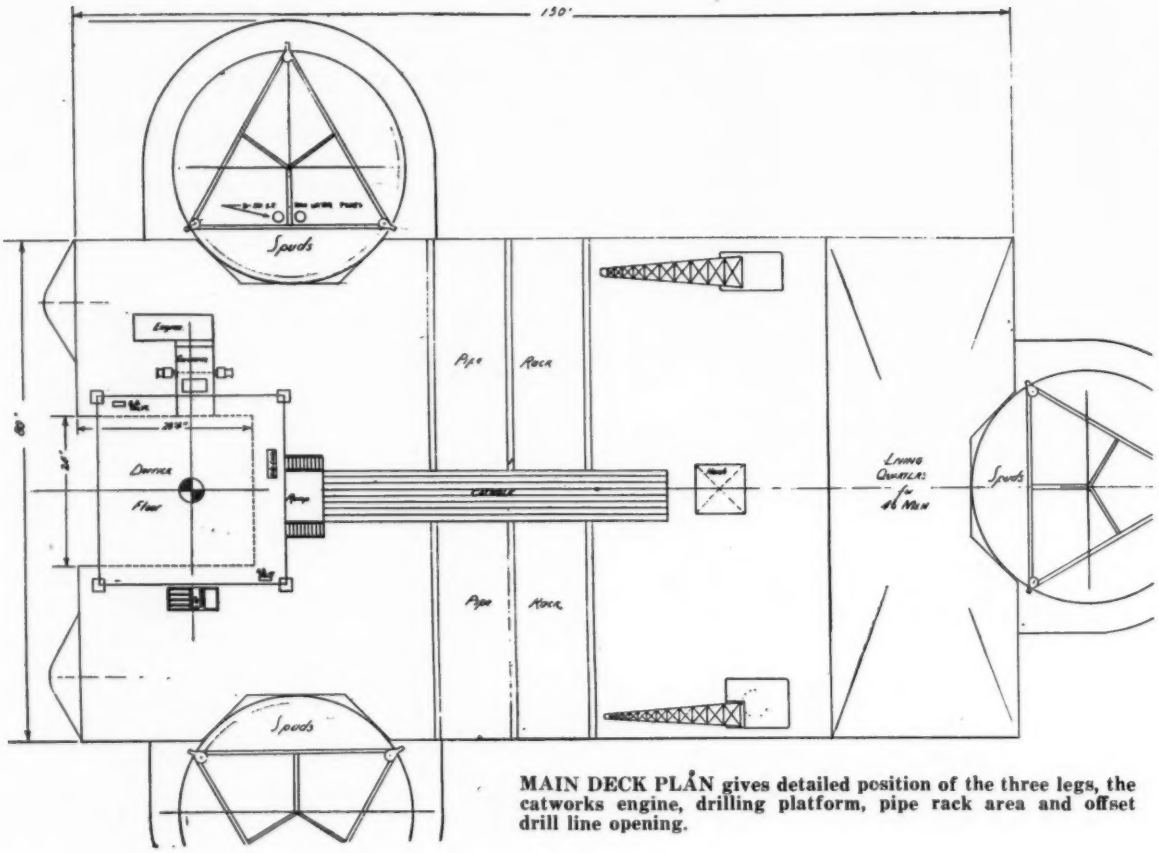
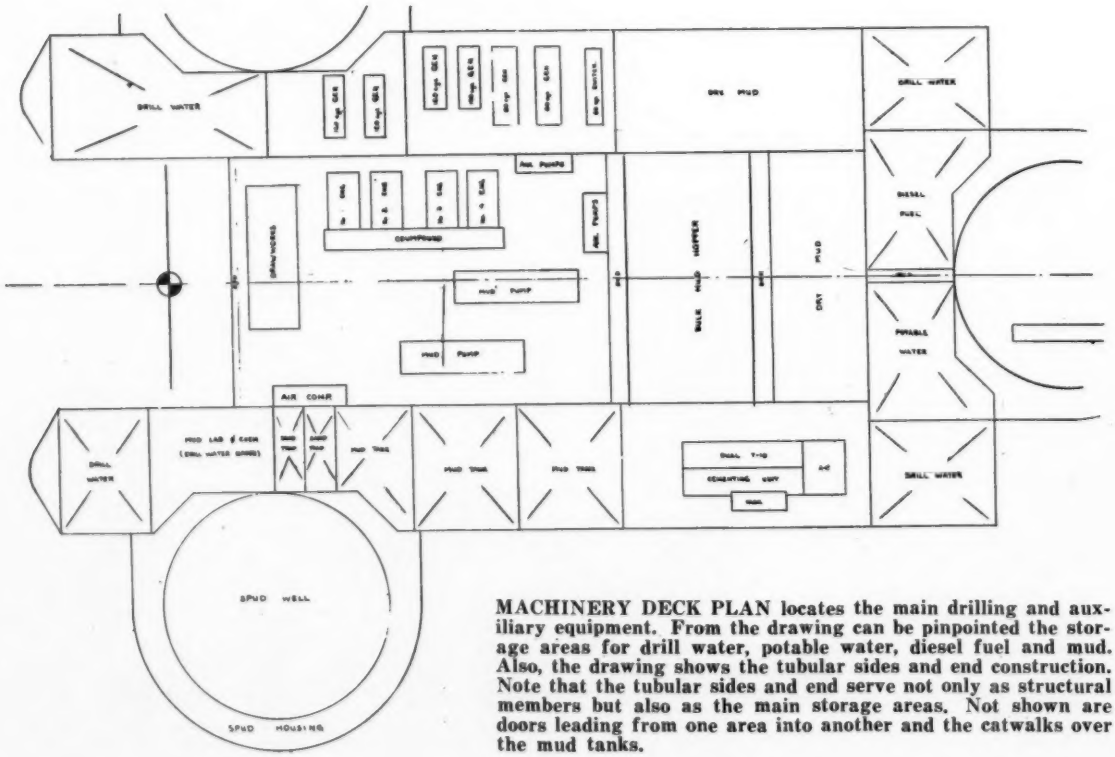
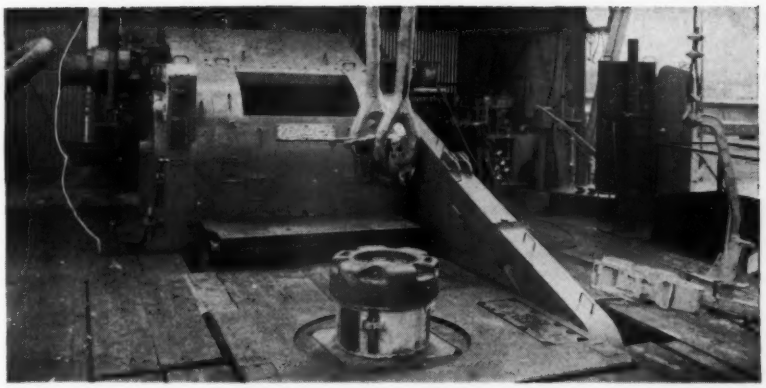


MAIN DECK PLAN gives detailed position of the three legs, the catworks engine, drilling platform, pipe rack area and offset drill line opening.



MACHINERY DECK PLAN locates the main drilling and auxiliary equipment. From the drawing can be pinpointed the storage areas for drill water, potable water, diesel fuel and mud. Also, the drawing shows the tubular sides and end construction. Note that the tubular sides and end serve not only as structural members but also as the main storage areas. Not shown are doors leading from one area into another and the catwalks over the mud tanks.



Drilling platform, looking toward the drilling post, with "Oilwell" 52-T modified drawworks. Stewart & Stevenson installed 6-110 catworks engine, Koomey unit in background. In foreground is the kelly bushing, "Oilwell" 26-HD rotary, and Web Wilson tongs.

Drilling Equipment . . .

(continued from page 56)

links. The rotary hose used is manufactured by Thermoid Company.

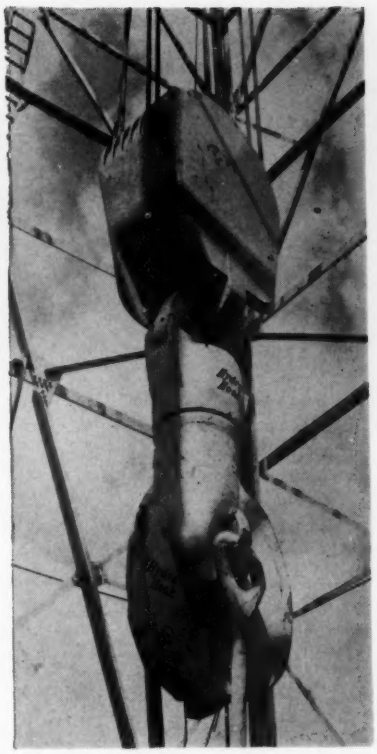
Also placed on the main deck are the Salt Water Control, Inc. degasser, Martin-Decker Type B weight indicator, and Hutchison Manufacturing Company Rumba shale shaker. The drilling controls for remote operation of the drawworks, compound and mud pumps are located at the drilling post. A dual control panel is set at the pump station below deck for dual operation of the engines and mud pumps.

Installed on the **Scorpion** at the Vicksburg shipyard were two fully revolving, 250-foot-ton LeTourneau cranes with 60-foot booms. The cranes are electrically operated, with push-button controls. Also installed were three 50,000-lb. LeTourneau wire line anchor windlasses with electric drive, two forward and one aft, to serve as handling winches for positioning on location.

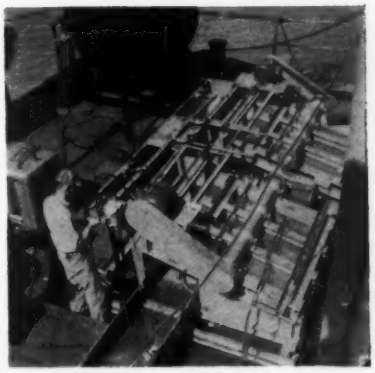
Drawworks . . . The drawworks, an "Oilwell" 96, with grooving by LeBus International Engineers, Ltd., for 1 3/8-inch line, is operated from the derrick floor. The brake is mechanically connected to the drawworks instead of being air or hydraulically operated, giving the driller the added advantage of "feel" when drilling.

Because the drawworks is located below deck on the same side of the derrick as the pipe rack, the drawworks and guide for the fast line were offset four feet from center to allow clearance for the drill pipe to be drawn past the fast line onto the drilling platform. To keep the drill line within proper angular limits, a fair-line sheave was strung up at the crown through which the fast line is run down to the traveling block.

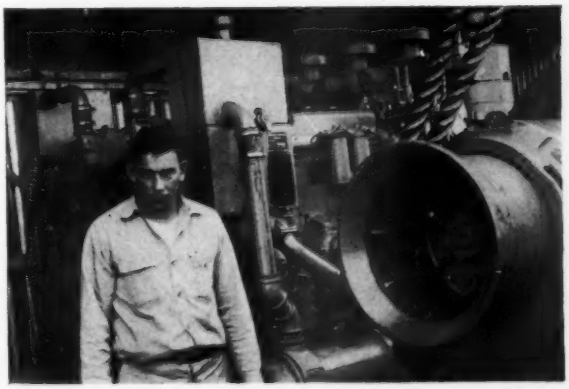
(continued on page 60)



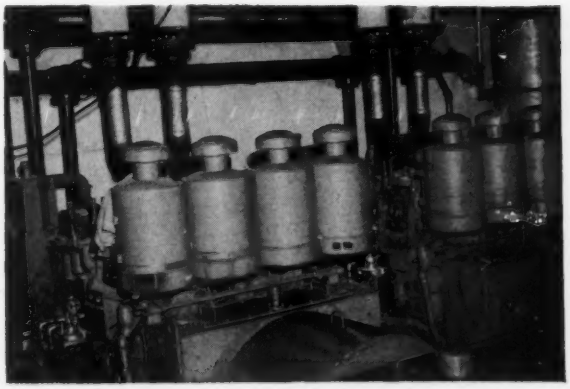
Web Wilson Hydra-Hook and "Oilwell" 480 travelling block.



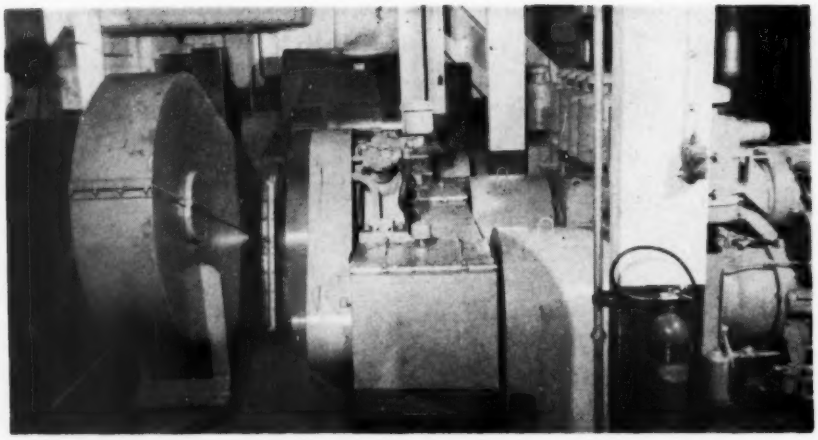
Hutchison shale shaker, located to port of derrick substructure.



Sam Keene, toolpusher on the SCORPION, stands before the twin tandem GM 6-110 catworks engine.

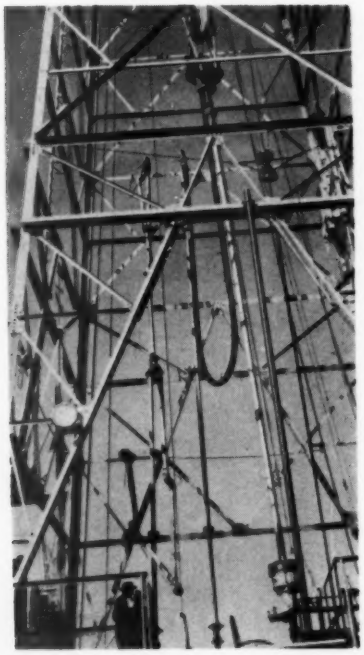


Two of the four GM twin tandem 6-110's, powering the drawworks and mud pumps.

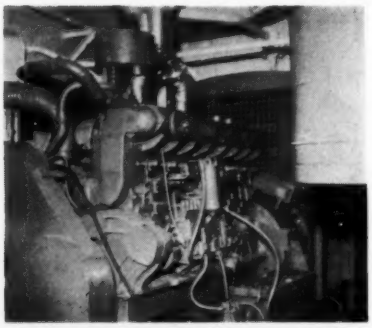


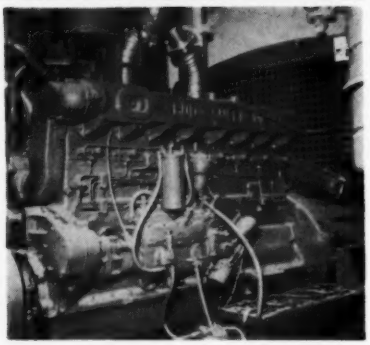
Gear reduction system from the compound to main mud pumps, with Texas Marine & Industrial Supply installed fire extinguisher in foreground.

One of two salt water pumping units providing stand-by dual system.



Thermoid rotary hose, Hutchison rig lights, as connected aboard SCORPION.





Two of four Buda 8-DAS-1125 300-plus hp engines.

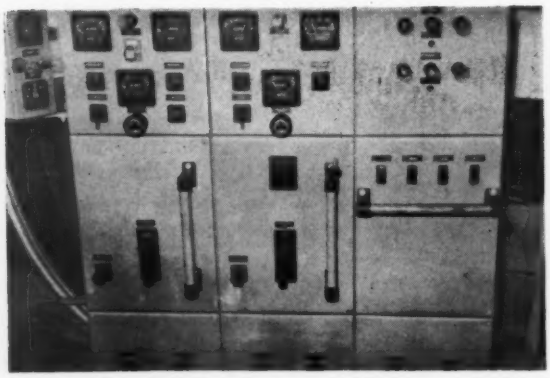
(continued from page 59)

Other lower deck machinery . . . The "Oilwell" 1500 hp drawworks is located in the main machinery room below deck. Powering the drawworks are four twin tandem 6-110 GM diesel engines, supplied by Stewart & Stevenson Services, of 541 hp each in compound with the two "Oilwell" 818-P mud pumps of 925 hp each. The compound has a lift out shaft and the air clutches operating the unit are gap mounted or roll out type for easy servicing. Also the compound can be split by a clutch arrangement into two separate units of two engines each—one unit to run the drawworks and one mud pump and one unit to run the other mud pump.

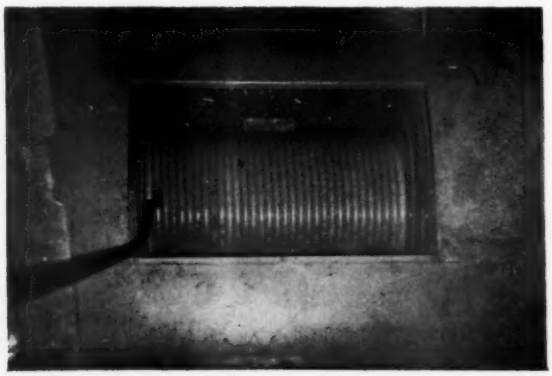
An "Oilwell-Brantley" feed control system has been installed. Mud valves are Edwards "Mud Wonder" Valves.

The prime mover for the auxiliary power system are two 200 kw

(continued on page 62)



McIntosh Electric Company's especially designed power switchboard is below decks, providing central control.



LeBus International Engineers groovings on the drawworks handle drill line 1⅜-inch in diameter.

AVAST! SEA GOING CONTRACTORS

LOOK IT'S NEW

A DUAL DESANDER

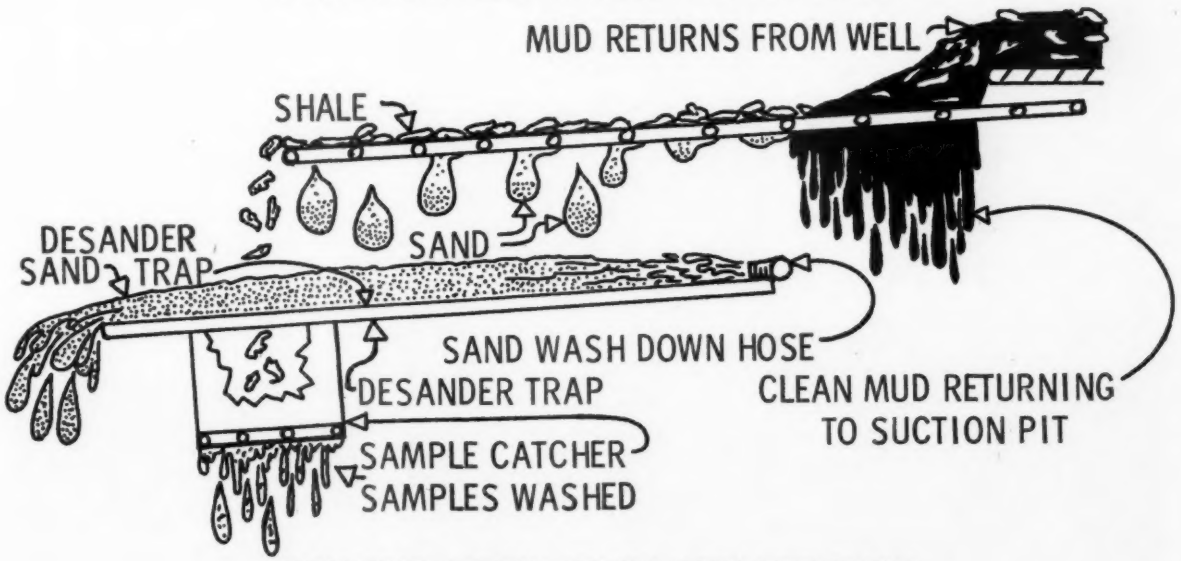
BY "RUMBA"

In Service Continuously When Pumps Are Running

Dual Model Catalog No. 4860-DU
Removes Sand and Shale

SAVES Pump Repairs
SAVES Drill Pipe Cutting Out
SAVES Long Fishing Jobs
SAVES Bit Wear Less Trips
SAVES Drilling Time
SAVES Time Setting Casing
SAVES Drill Pipe Sticking
SAVES Mud Waste by Less Frequent Sand Trap Dumping
SAVES Costly Mud Transportation

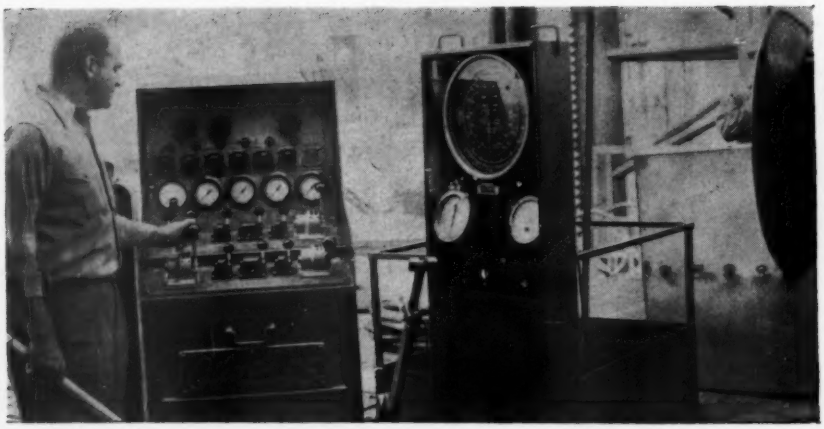
THIS IS HOW SAND IS SEPARATED FROM MUD



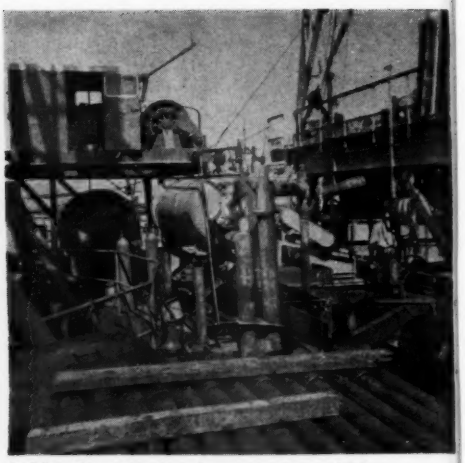
DESANDING ACTION STARTS WITH MUD FLOW

HUTCHISON MANUFACTURING COMPANY

6609 Avenue U, Houston 11, Texas



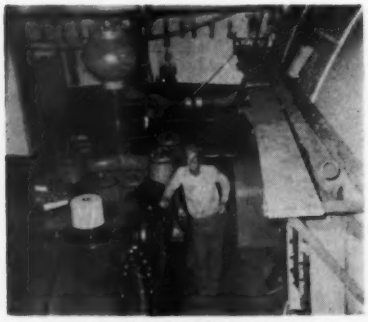
"Oilwell" console, mechanically connected brake, and Martin-Decker Type E weight indicator, with Hoyt S. Taylor, chief engineer, examining the installation.



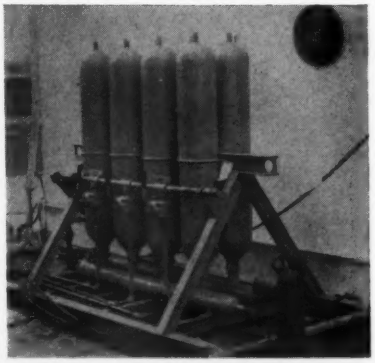
Schlumberger logging unit with Swaco degasser in foreground.

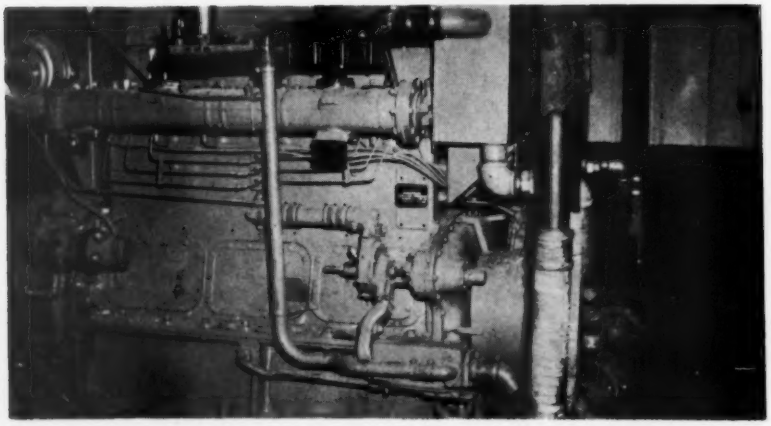
Halliburton unit located aft of the mud room below decks.

Koomey Blowout Preventer Closing Unit, located on the drilling platform inboard of the catworks. And, below, Koomey remote controls near quarters.



Joe Witten, SCORPION barge foreman, stands next to one of two "Oilwell" 818-P mud pumps.





One of two Waukesha NKDBS diesels used exclusively for auxiliary power.

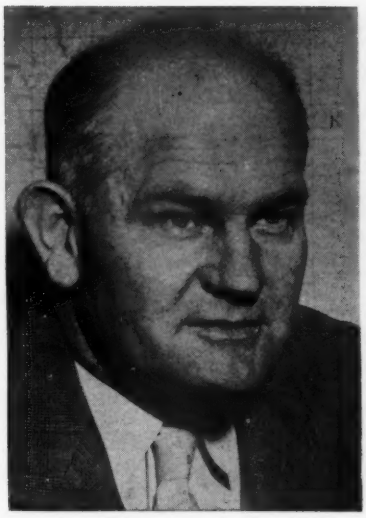
(continued from page 60)

NKDBS Waukesha diesel engines that turn generators supplying 3 phase, 240-volt, 60-cycle electric power. All electrical installations below deck—including the main control panel and the Hose-McCann telephone system—were installed by McIntosh Electric Company of Beaumont, Texas. A dual salt water pump system of two pumps each makes available a stand-by pump arrangement for salt water.

Blowout preventers . . . Three QRC blowout preventers, made by Cameron Iron Works, are coupled with a Hydril preventer. To complete the blowout preventer hook-up, a Koomey Blowout Preventer Closing Unit Model S-222, supplied by Stewart & Stevenson Distributing Company of Houston, is located on the drilling platform inboard of the catworks engines. Dual controls for the Koomey Unit are located near the debarking point by the housing unit. The Schlumberger logging unit has been placed on the main deck near the substructure. The Halliburton cementing unit is below decks, aft of the machinery room.

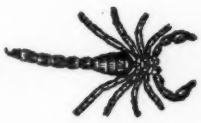
Swaco degasser, placed between leg and derrick substructure on main deck.

George H. W. Bush
. . . the president



Wayne H. Dean
. . . manager of operations

J. Hugh Liedtke
. . . company treasurer

Operating  **is**

Zapata Off-Shore Company

The company is new and has a new mobile unit, but in terms of oil experience Zapata Off-Shore is old

ZAPATA OFF-SHORE COMPANY is a new company operating a new and advanced mobile unit, yet in terms of experience the firm is old. Incorporated less than two years ago, Zapata Off-Shore can still boast of 68 years of experience shared among its four top men. And its manager of operations, Wayne H. Dean, is acknowledged as one of the real pioneers of Gulf of Mexico drilling.

Organized by Zapata Petroleum Corporation, a substantial stockholder, Zapata Off-Shore Company was incorporated October 25, 1954. Zapata Off-Shore then contracted with R. G. LeTourneau for the **Scorpion**, and, on the basis of having ordered the mobile unit, offered the public 315,000 shares of common stock, of a total of 760,000 shares.

Work on the basic structure extended from October, 1954, to December 1955. **Scorpion** was then towed to Galveston for outfitting.

Expansion . . . In April, 1955, Zapata Off-Shore purchased the YF tender **Nola I** from Standard Oil Company of Texas. The tender underwent extensive conversion at Harvey, Louisiana. In late September, conversion completed, **Nola I** began drilling 40 miles from Galveston.

Personnel . . . President of Zapata Off-Shore is George H. W. Bush. A Phi Beta Kappa from Yale University, Bush came directly from Connecticut to Texas, starting in the oil business at the bottom. He is also vice-president of Zapata Petroleum Corporation and president of Zapata Drilling Company.

J. Hugh Liedtke, former independent operator, serves as company treasurer. Liedtke is president of Zapata Petroleum Corporation and vice-president of Zapata Drilling Company.

Offshore pioneer . . . Vice-president and manager of operations is Wayne H. Dean. Dean is in active charge of drilling operations, a position he previously held for five years with Kerr-McGee Oil Industries, Inc.

Assisting Dean is Hoyt S. Taylor, Zapata's chief engineer. Taylor was formerly Kerr-McGee's chief drilling engineer for the Gulf Coast. All four men, who brought a total of 68 years of oil experience into the company, are directors.

On January 9, 1956, Taylor was named secretary and made a director. Directors of the company since its

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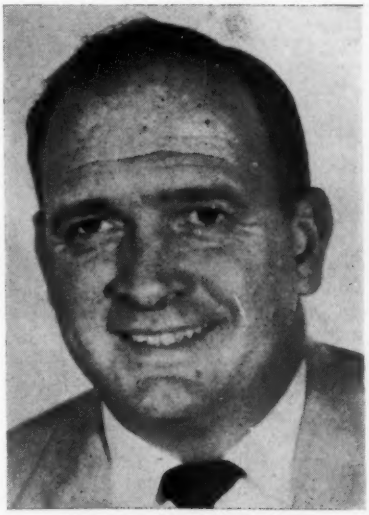
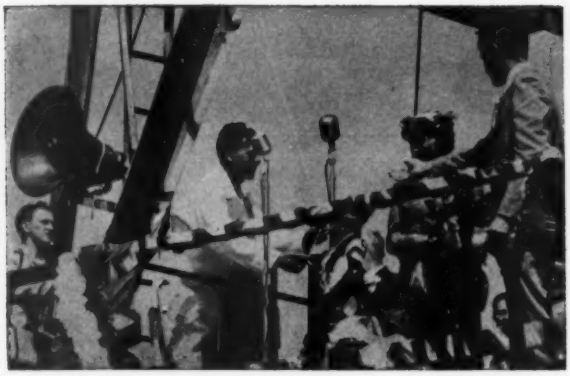
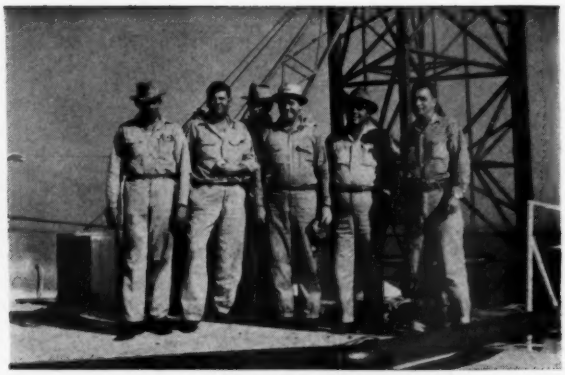


Hoyt S. Taylor
. . . chief engineer

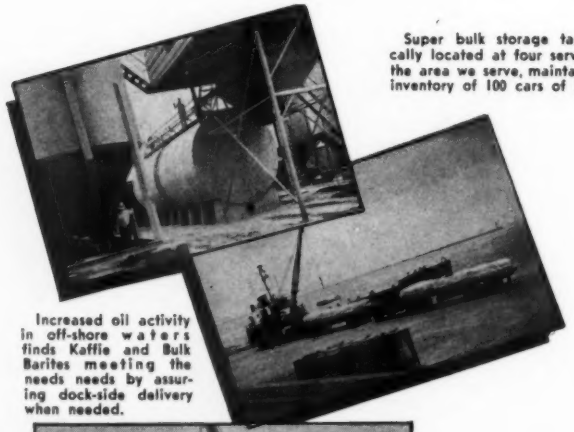




Mud! When you need it!

KAFFIE AND BULK BARITES, INC., THE LARGEST DISTRIBUTORS OF BULK MUD IN THE UNITED STATES, IS EQUIPPED TO HANDLE YOUR MUD NEEDS QUICKLY, ECONOMICALLY, EFFICIENTLY.

Constantly on hand, ready for immediate, routine or emergency operations are 100 car loads of bulk mud. Bulk trucks stand available for plant pick-up to maintain storage at capacity.



Super bulk storage tanks, strategically located at four service points in the area we serve, maintain a constant inventory of 100 cars of bulk mud.

Increased oil activity in off-shore waters finds Kaffie and Bulk Barites meeting the needs needs by assuring dock-side delivery when needed.

Pallets each holding 10,000 pounds of drilling mud being hoisted into service ship for delivery to an off-shore drilling rig. A special export marine sack is used since the water journey is many miles out into the Gulf of Mexico.

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Offices: 1319 Agnes Street

Corpus Christi, Texas

P. O. Box 867 **Tel. Tulip 3-8485**

At left, Mrs. Wayne H. Dean sponsors SCORPION at christening ceremonies. Above, left to right, Sam Keene, toolpusher; Ian Figart, drilling superintendent; Wayne Dean, manager of operations; Hoyt Taylor, chief engineer; Ted Weems, assistant toolpusher; C. R. B. Hopper, offshore engineer for Standard of Texas.

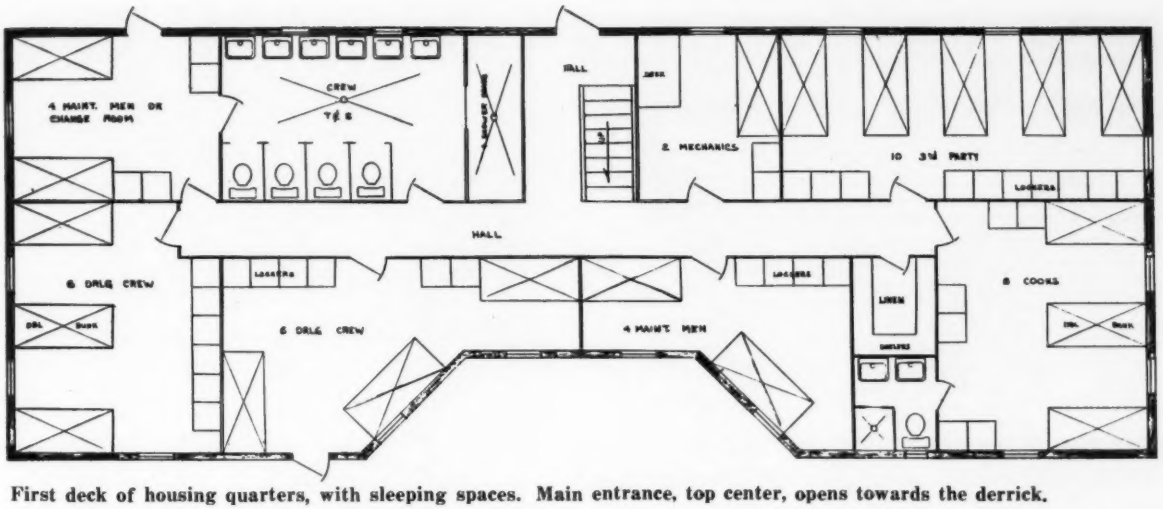
(continued from preceding page)

inception are Robert U. Parish and Milton R. Underwood, of Houston, and Sam G. Winstead of Dallas. Parish is also assistant secretary.

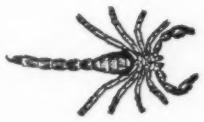
Staff augmented . . . Mrs. Billie F. Jackson, Dean's private secretary, opened the Houston office in the City National Bank Building with him in November, 1954. In 1955 the staff was considerably expanded. In April, R. C. Mosby came as radio communications superintendent; in May, Ian Figart became toolpusher and later drilling superintendent; in August, Joe Tullos became driller and, later, assistant toolpusher; in September, Jerry Rudolph came as office manager; Miss Jeanne Vermillion as secretary; in October, R. L. Haese became driller and, later, toolpusher; Sam Keene is toolpusher on the **Scorpion,** assisted by Ted Weems.

Other additions include, as base supervisors, Bob Stanmire at Galveston and Kirby L. Roy at Cameron, La.; Albert Tabor as barge engineer; Carl Johnson, J. B. England, H. J. Powell, and J. D. Twist as drillers.

Mrs. Billie F. Jackson was one of Zapata Off-Shore's first employees.



First deck of housing quarters, with sleeping spaces. Main entrance, top center, opens towards the derrick.

Home for the  **crew**

Quarters for 46 Men

THE housing unit on Zapata Off-Shore Company's mobile drilling unit **Scorpion** provides comfortable, air-conditioned living quarters for 46 men. Maximum space, convenience and safety have been crammed into a tight half acre.

Fabricated by Reagan Tool Company, of Morgan City, La., the housing unit sits athwart the weatherdeck facing the derrick on the opposite end. It stands two stories high, yet is dwarfed by the towering legs of the **Scorpion** when the unit is under tow.

A spacious dining room and recreation area are provided, as well as an all-electric gallery. Sub-contractor for all wiring and electrical installations in the housing unit was Electric Supply Company of Galveston. All piping aboard **Scorpion** was done by Farmer's Marine Copper Works of Galveston.

Chow . . . Good food, and lots of it, is served to the crew by Marine Catering Service. Warren Refrigerator Company has installed a walk-in freezer and cold storage room.

Supplies . . . Three Falgout Boat Company crewboats —two serving as standby boats during drilling operations—and the newly-commissioned **Tilman J. No. 2,** constitute the **Scorpion's** auxiliary fleet. The **Tilman J. No. 2** is a 135-foot self-propelled cargo barge used to transport bulk supplies. Boat crews are being furnished by Zapata.

Safety . . . As a safety measure Consolidated Ship Yard's rope cage is used to handle personnel from boat to platform deck. Guard rails run completely around the main deck and the drilling platform as well

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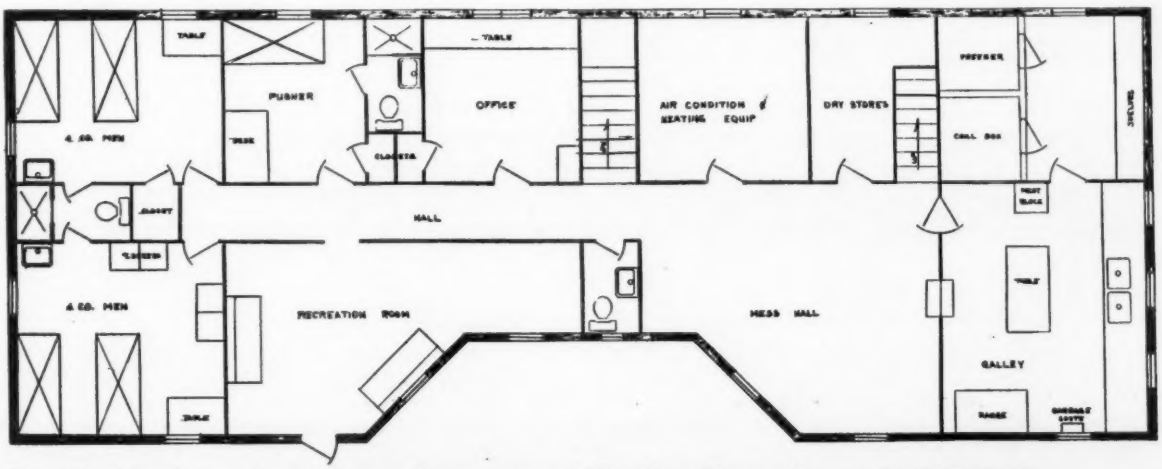


Top deck of housing quarters, with recreation room, mess hall, galley, offices, and rooms for company men.

Your Martin-Decker serviceman knows your weight indicator best

Martin-Decker's factory-trained men are familiar with every nut and bolt of your weight indicator, tachometer, mud-pressure gauge, drawworks speed selector, torque gauge, cement and acidizing recorder, and other precision equipment.

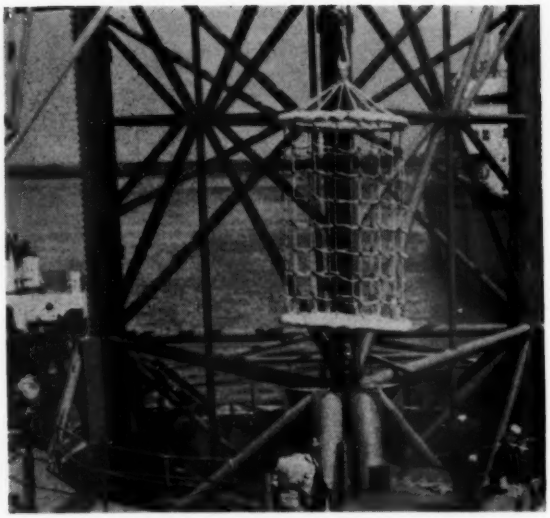
Should your instruments need service, and you can't bring them into one of Martin-Decker's shops, men and mobile equipment are standing by for servicing your instruments right on the rig.

Service facilities are as near as your phone

Martin-Decker Sales & Service Dept.
c/o Reed Roller Bit Co., P.O. Box 870
Houma, Louisiana, phone 6892
Evenings, Sundays and holidays, call:
Frank Kelso, Houma 6125

Other Reed phone numbers for Martin-Decker service:
New Iberia, La. 2-9917 • Laurel, Miss., 8-7261
Lake Charles, La., HEmlock 9-4584
Harvey, La., New Orleans phone EDison 6876
Natchez, Miss., 5714

MARTIN-DECKER CORP.
HOME OF THE WEIGHT INDICATOR — LONG BEACH, CALIFORNIA



After christening ceremony, several people examine personnel transfer basket made by Consolidated Ship Yard, Inc.

(continued from preceding page)

as the drilling line opening to the drawworks. The number of fire extinguishers on the **Scorpion** exceed the number required by the Coast Guard, and were placed on board by Texas Marine & Industrial Supply Company of Houston.

BIG LINES

need **BIG** weight indicators

and **BIG** wire line anchors

The Martin-Decker Type "E" Weight Indicator and Ideal Wire Line Anchor are unequalled for the super rigs used in offshore work. The anchor is designed for 1⅜" and 1½" lines and has a 90,000 lb. rated deadline capacity. The maximum weight indicator reading (10 lines) is 750,000 lbs. For full data write Martin-Decker, 3431 Cherry Ave., Long Beach 7, Calif.

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HOME OF THE WEIGHT INDICATOR — LONG BEACH, CALIFORNIA

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Specialists in Designing, Building, Installing and Servicing Galley Refrigerator Equipment

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The piping contractor on Zapata's mobile drilling platform was . . .

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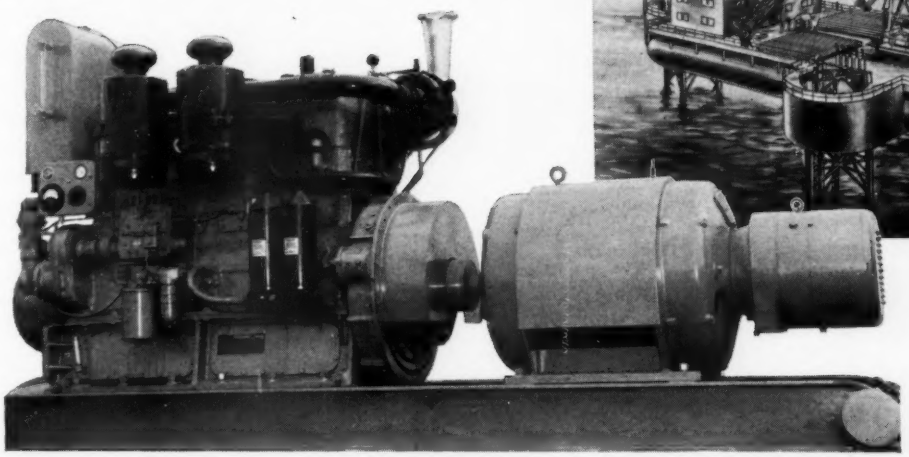
Fabricators of:
- Cupro Nickel
- Inconel
- Monel
- Nickel
- Bronze
- Steel

DEPENDABILITY — SERVICE — QUALITY . . . . . FOR 36 YEARS

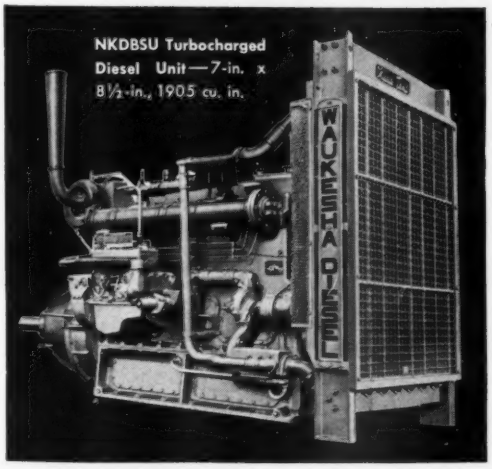
1908 Strand, Galveston

TELEPHONE: Galveston 5-5749, Houston CA 8-5957

on the ZAPATA off-shore platform



WAUKESHA *Turbodiesels* supply reliable generator power



This mobile off-shore platform of the Zapata Off-Shore Company of Houston, Texas, has two engine generator sets to supply auxiliary power. A 1200 rpm Model NKDBS Waukesha Turbodiesel powers each of these 200 KW, 3-phase, 120/208 volt generator sets which are built by the Reagan Equipment Co. of New Orleans, La.

The Waukesha NKDBS is a 6-cyl., 1905 cu. in., counterbalanced crankshaft, turbo-supercharged Diesel. A rugged, compact engine, it has lively acceleration, clean burning, prompt starting, and great overall economy. Waukesha's exhaust turbocharger system, unique patented combustion chamber, and design features proved in many years' service provide smooth, **extra** power—up to 368 hp in this NK Series Turbodiesel. Send for Bulletin 1634.

50th ANNIVERSARY Waukesha MOTOR CO. 1906-1956

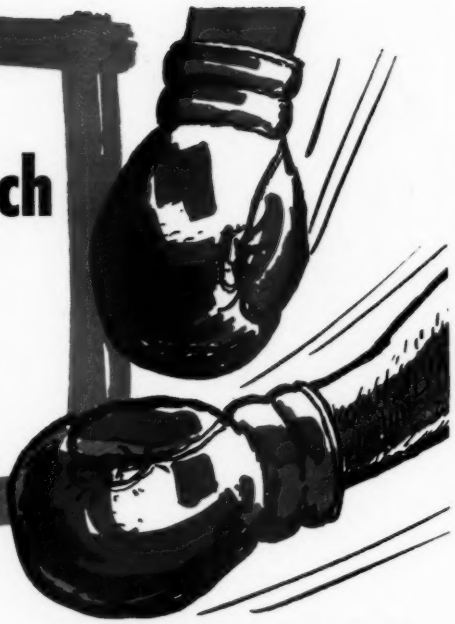
314

WAUKESHA MOTOR COMPANY, WAUKESHA, WISCONSIN

New York • Tulsa • Los Angeles

The "ONE-TWO" Punch

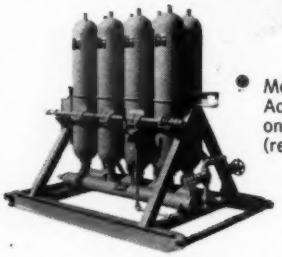
that furnishes Positive Power Protection for Zapata's "Scorpion"



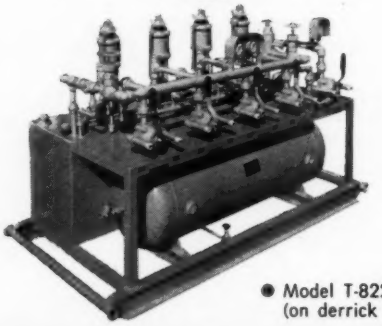
KOOMEY *Blowout Preventer CLOSING UNITS— and S. & S. "Power Packaged" ACCUMULATORS*

Designed specifically for the operation of blowout preventers, these units offer the dependable protection safety-conscious operators demand. Each KOOMEY Closing Unit consists of a **minimum** of two motors and two double action pump assemblies that are interchangeable . . . and either assembly is capable of closing the rams on a blowout preventer independently. For added safety, the Accumulator Units are made up of 10 gallon accumulator bottles in manifold to form a compact "Power Package." This feature permits the system to operate even if several of the nitrogen filled bags within the bottles should fail.

- **Selection of models designed to meet requirements of all makes of Blowout Preventers.**
- **3000 p.s.i. working pressure furnished by Accumulator.**
- **Units can be easily serviced in the field.**
- **Remote controls for added safety.**



● Model SS-80 Accumulator with one remote control (remote location)



● Model T-822-HD-5H (on derrick floor)

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HOUSTON, TEXAS

GET COMPLETE INFORMATION AND PRICES

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Please send me a copy of your illustrated catalog on KOOMEY Blowout Preventer Closing Units.

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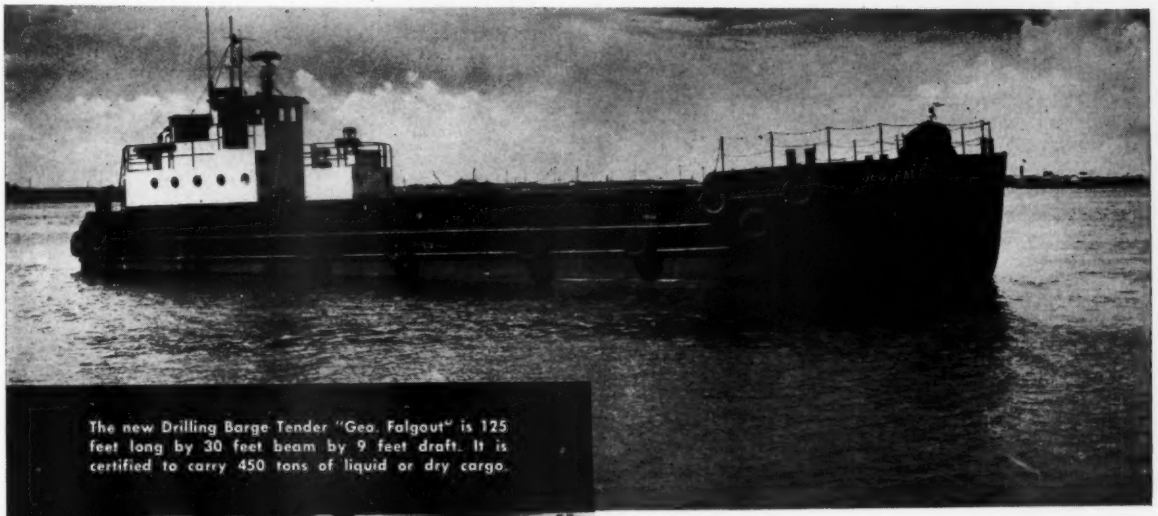
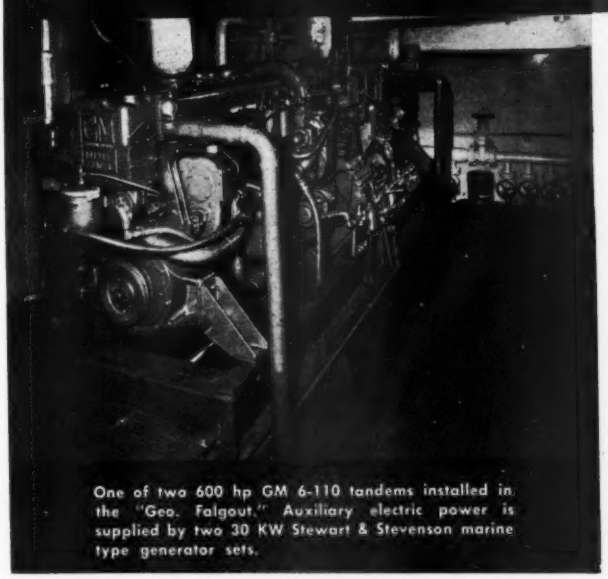
A SALUTE TO ZAPATA!

. . . and two terrific new supply boats



The new Drilling Barge Tender "Geo. Falgout" is 125 feet long by 30 feet beam by 9 feet draft. It is certified to carry 450 tons of liquid or dry cargo.



One of two 600 hp GM 6-110 tandems installed in the "Geo. Falgout." Auxiliary electric power is supplied by two 30 KW Stewart & Stevenson marine type generator sets.

Eighteen vessels serving the offshore oil industry

When Zapata Off-Shore Company's new mobile drilling platform SCORPION puts to sea, four vessels from our offshore fleet will go with her. A new drilling barge tender, "Tilman J. No. 2," similar to the "Geo. Falgout" pictured above, will supply the deep-water giant with bulk materials. Two other vessels will serve as stand-by boats during drilling operations.

The "Geo. Falgout" and three companion craft are servicing the "Nola I," Zapata's drilling tender currently on location off the coast of Louisiana.

The Falgout Boat Company and Galveston Boat Company have 18 vessels servicing marine oil operations in the Gulf of Mexico. Backed by experience in offshore operations since the inception of the industry, plus additional years in marine craft, these companies are able to provide offshore operators with exceptional service and the finest marine equipment afloat.

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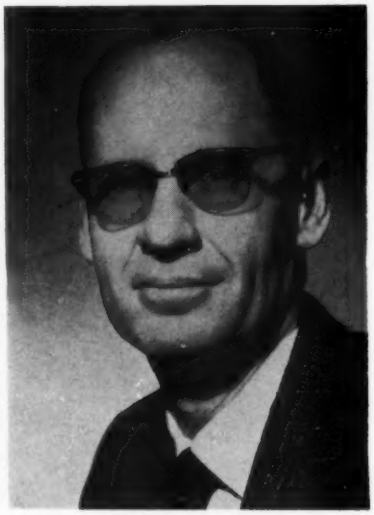
John H. Davis
. . . exploration manager



S. V. McCollum
. . . production manager

CATC Forms Separate Region

Four-company group's expanded activities no longer supervised by Conoco's offshore marine department

THE CATC GROUP'S operations have expanded to the point where formation of a separate region is required. Establishment of the new CATC marine region and appointment of seven key men to new positions in the region has been announced by L. F. McCollum, president of Continental Oil Company.

The new region, to be headquartered in Houston, will serve as operator for the CATC Group, which consists of Conoco, Atlantic Refining Company, Tide Water Associated Oil Company and Cities Service Oil Company.

CATC's operations formerly were administered by Conoco's offshore marine department. The company's offshore activities other than CATC will become a part of Conoco's southern region exploration and production departments.

Key CATC region men, all of whom will be headquartered in Houston, are:

S. V. McCollum, Fort Worth, assistant production manager of Conoco's southwestern region, promoted to production manager for the CATC marine region.

John H. Davis, Houston, offshore division exploration manager, promoted to CATC marine region exploration manager.

W. A. Pearce, Houston, formerly a section chief in Conoco's headquarters production department, promoted to CATC regional engineer.

H. A. McKinley, Houston, offshore division land superintendent, promoted to CATC marine region land superintendent.

R. M. Dungan, Houston offshore division geologist, promoted to regional geologist for the CATC marine region.

D. F. Wint, Houston, formerly offshore division geophysicist, promoted to regional geophysicist for the CATC marine region.

M. J. Lindsay, Houston, offshore division chief clerk, promoted to CATC regional chief clerk.

Division office . . . CATC also has set up its division production and geological office in New Orleans and a new district office at Lake Charles, Louisiana.

J. C. Craig, CATC offshore division superintendent from Houston, has transferred to New Orleans in the same capacity. K. T. Webb, Harvey district geologist, has been promoted to division geologist for CATC at headquarters in New Orleans.

New district . . . The new Lake Charles district office will supervise group activities in the East Cameron, West Cameron, and Vermilion areas in the Gulf of Mexico.

H. R. Beattie, formerly assistant district offshore superintendent at New Orleans, has been promoted to production superintendent of the Lake Charles district. In addition, P. J. Eberlein, New Orleans geologist, is now CATC district geologist at Lake Charles.

CATC already has a district office at Harvey, Louisiana, and both it and the Lake Charles office are subordinate to division headquarters in New Orleans.

For Conoco operations . . . Contiental Oil Company has formed a new Gulf of Mexico exploration division, with headquarters in Houston, for all company exploratory operations in the Gulf of Mexico, other than those conducted for CATC by Conoco's new marine region.

In addition to CATC, Conoco is a member of the MCN Offshore Group (with Magnolia Petroleum Company and Newmont Oil Company) and recently became partners with Shell Oil Company in an exploratory venture 63 miles off Galveston. Magnolia operates the MCN Group and Shell the Shell-Conoco joint venture.

Greenwood

Key men in the Gulf of Mexico division, all to be headquartered in Houston, are:

C. E. Greenwood, Houston, assistant to the southern regional geologist, promoted to division geologist, Gulf of Mexico division.

Tucker

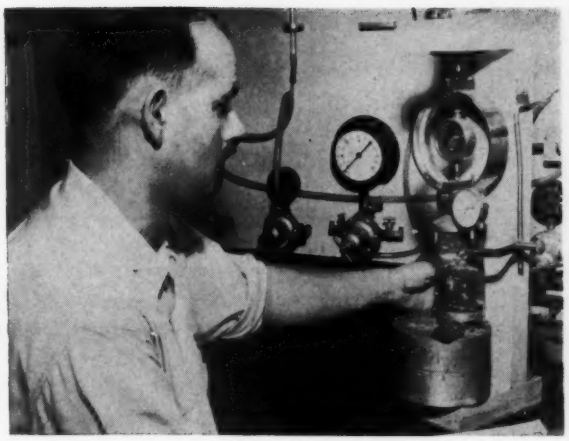
Gullick

L. Ray Tucker, Houston, landman, promoted to Gulf of Mexico division land superintendent.

C. H. Gullick, Fort Worth, southwestern region geophysical supervisor, promoted to Gulf of Mexico division geophysicist.

Sam M. Udden, Houston, geologist, promoted to assistant division geologist for the Gulf of Mexico division.

Unconfined compression tests taken on the drillsite or in the laboratory are part of foundation investigation which provides information necessary for erecting offshore structures.



Black dial tells how much load was needed to shear the sample, white dial how far it was first compressed vertically. Making the test is S. N. Teed, engineer in charge of the McClelland laboratory.

Soil Mechanics as Applied to Mobile Drilling Structures

By BRAMLETTE McCLELLAND
and
JOHN A. FOCHT, JR.
McClelland Engineers

Part I: Foundation loads, spread footing units*

THE ideal mobile drilling unit could be installed, operated, and moved in all weather conditions. It could be erected in a wide range of water depths and would be stable at any location regardless of soil conditions.

But the ideal structure cannot be built, and all existing and planned units are for limited ranges of water depth, are not expected to be moved and erected in unfavorable weather, and cannot meet all soil conditions.

Selecting and defining limitations of a structure in terms of soil and weather is one of the major tasks facing designers of such units. The field of soil mechanics can be of material aid to designers in carrying out this task.

All loads, both vertical and horizontal, applied to a drilling structure on location must be transmitted safely to the underlying soils through the supporting foundation.

The extreme range of shear strength of clay soils on the bottom of the Gulf of Mexico complicates the situation. Near the mouths of the Mississippi River the clay soil is extremely weak for a great depth —as much as 60-300 feet below the Gulf bottom, as shown on Figure 1. Some of these soils are estimated to be less than 200 years old.

Elsewhere off Southeast Louisiana soils are moderately strong and increase in strength with depth. Along the coast of Texas and Southwest Louisiana strong clays overlain by soft clays cause an abrupt change in strength relatively close to the surface. Sand and shell cover only a minor proportion of the Gulf bottom, although they are found in many widely scattered locations.

In water less than 150 feet deep a soils engineer can predict which of the shear strength profiles shown on Figure 1 will most likely be found in a given area. But abrupt changes in soil conditions have been observed within a distance of a few hundred feet, therefore it is impossible to divide the Gulf into areas of specific foundation soils. Only by making soil borings can detailed estimates of foundation performance at a location be made.

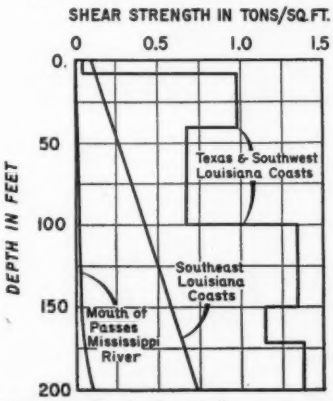


Figure 1 Typical soil shear strength profiles

Basic foundation loads on units . . . Loads imposed on a foundation by the weight of the structure, drilling operations, wind and waves may be resolved into vertical and horizontal forces. Weights of the structure, equipment, and operating loads push down. Wind and wave action exert a horizontal force on the structure. Overturning forces are caused by both horizontal loads and eccentrically located vertical loads.

Foundation units now used or planned for mobile drilling structures are of two basic types:

1) Spread footings, which develop supporting power primarily by soil bearing at or near the soil surface. These include barges, hulls, pontoons, pads, and other elements regardless of size.

2) Piles, including large diameter caissons or piers as well as the usual smaller diameter piles.

(continued on next page)

*Condensed from "Soil Mechanics As Applied to Mobile Drilling Structures," presented at the ASME Petroleum Mechanical Engineering Conference in New Orleans, September 25-28.

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(continued from preceding page)

Spread footing units . . . A vertical load in the center of a spread footing may be assumed to produce uniform soil pressures over the entire area of the footing, as shown on Figure 2. Shifting of the load off-center or adding an overturning force results in an increase in bearing pressure on one side of a footing and less pressure on the other.

A horizontal force on a footing is resisted by shear stress between the soil and the footing and, if it is

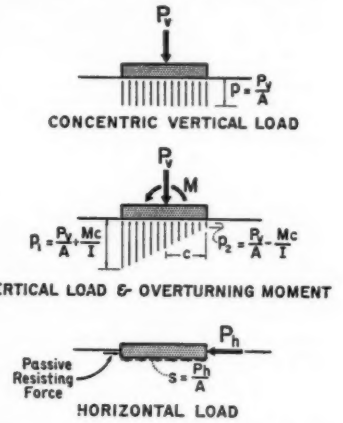

Figure 2 Reaction of spread footings to different loads

embedded, by the lateral pressure of the soil in front of the footing. The lateral soil resistance, or "passive pressure," probably is of limited influence, however, since there is appreciable burying of the footing.

A spread footing may fail in several ways.

It may sink vertically if the average vertical pressure exceeds the soil bearing capacity. It may tilt if overturning or eccentric forces cause bearing pressures on one side greater than the soil can carry. And it may slide horizontally under the lateral forces of wind and waves. All of these types of failures have been experienced by spread footing units.

The loads which will cause failure of spread footings can be estimated with reasonable precision by routine soil mechanics procedures.

Special design measures can be taken to minimize foundation failures. The most obvious—but often least possible—correction is to make the footing large.

A sand or shell blanket placed on bottom for shallow-water structures increases bearing capacity. The strong materials spread the load be-

(continued on page 84)

Mobile Units And Tenders

Gulf Coast Area

Mobile Rigs

OWNER	Name	Water Depth	Present Status
Kerr-McGee Oil Ind., Inc. 13′ x 54′ x 160′, with two 13′ x 14′ x 110′ pontoons	Rig 40	To 20′	Drilling in Block 84 West Delta Area for CATC
Kerr-McGee Oil Ind., Inc. Hayward-Wolff Design, 13½′ x 72′ x 140′ with two 13½′ x 13½′ x 140′ pontoons	Rig 44	To 40′	Block 30 Ship Shoal Area for Kerr-McGee, et al.
Kerr-McGee Oil Ind., Inc. 142′ x 69′ x 13′ 6″, with two 10′ x 11′ x 146′ pontoons	Rig 45	30-35′	Drilling in Block 47, Main Pass Area, for Kerr-McGee, Union of California
Ocean Drilling & Exploration Company Hayward-Laborde Design, 14′ x 74′ x 220′, with 10′ x 30′ x 50′ pontoons (2)	"Mr. Charlie"	35′	Drilling for Shell, Block 27, South Pass Area
The Offshore Company DeLong Design, 8½′ x 70′ x 203′ with 12 6′ dia. caissons	Mobile Unit No. 1		Leased to Humble, at Grand Isle
The Offshore Company DeLong Design, 13½′ x 117′ x 220′, with 14 6′ dia. caissons	Mobile Unit No. 2	58′	Drilling for Phillips
The Offshore Company DeLong design, 12′ x 74′ x 200′, with four 6′ dia. caissons and four DeLongj acks	Mobile Unit No. 3	26′	Drilling for Humble Oil & Refining Co.
American Tidelands, Inc. Alexander Shipyard Design, 12′ x 74′ x 200′ with four pontoons	"101"		Drilling in Block 77, Eugene Island Area for Humble
C. G. Glasscock Drilling Co. Bethlehem Design, 15′ x 80′ x 225′	"Mr. Gus"	26′	Completing Shell Oil Co. No. 1 S.T. 488
C. G. Glasscock Drilling Co. Bethlehem design, deck 258′ x 104′, pad 200′ x 180′ with four 10′ dia. columns	Unnamed Rig 12	To 125′	Being built by Bethlehem at Beaumont
Ocean Drilling & Exploration Company Hayward-Laborde Design 10′ x 120′ x 180′	"John Hayward"		Drilling for Self, Block 67 Ship Shoal Area
Southeastern Drilling Co. Friede & Goldman design 11′ x 90′ x 156′ with four pontoons	Rig 22, Barge 8		Under construction at Avondale Marine Ways, Inc. of New Orleans
Zapata Off-Shore Company LeTourneau Design, 20′ x 80′ x 140′, with three triangular legs.	"Scorpion"	43′	Drilling for Standard of Texas, Block 932 Mustang Island Area
The California Company 11′ x 90′ x 156′ with four 3′ x 10′ x 35′ pontoons.	S-44		South Pass Block 29, The Offshore Co., contractor.
The California Company 11′ x 90′ x 156′, with four 3′ x 10′ x 35′ pontoons	S-45		Being Constructed
The California Company 12′ x 90′ x 190′, with four 4′ x 24′ x 50′ pontoons	S-55		Being constructed
Penrod Drilling Company California Company design. 150′ x 190′	Unnamed	To 70′	To be built by Bethlehem Shipyard, Beaumont
Delta Offshore Drilling Co. Friede & Goldman design, 156′ x 90′	Unnamed	To 25′	To be built by Avondale Marine Ways, New Orleans

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Coral Drilling Company Friede & Goldman design, 180′ x 151′ x 12′ with four pontoons	"Mr. Arthur"	To 67′	To be built by Alabama Dry Dock, Mobile, by summer, 1956
Kerr-McGee Oil Ind., Inc. Design not reported.	Rig 46	To 70′	Being built by Ingalls Shipbuilding, Pascagoula, Miss.
Kerr-McGee Oil Ind., Inc. Design not reported.	Rig 47	To 70′	Being built by American Bridge, Orange, Tex.
John W. Mecom floating drydock, 220′ x 78′ x 48′	Not announced		Being built by Levingston at Orange, to be completed early this year.
Placid Oil Co. twin submersible hulls, each 72′ x 178′	Unnamed	To 100′	Being built by Levingston at Orange.
The Offshore Company DeLong design, 200′ x 104′ x 15′ with eight 12′ dia. towers.	Mobile Unit No. 54	To 100′	Being built by American Bridge, USS, Orange, Tex.
The Offshore Company DeLong design, 200′ x 104′ x 15′ with eight 12′ dia. towers.	Mobile Unit No. 55	To 100′	Being built by American Bridge, USS, Orange, Tex.
Penrod Drilling Company Penrod design 185′ x 50′	Unannounced	To 18′	Being built by Levingston at Orange
Penrod Drilling Company Penrod design 185′ x 50′	Unannounced	To 18′	Being built by Levingston at Orange
Ocean Drilling & Exploration Company ODECO design 200′ x 300′ x 93′	"Margaret"	To 65′	Under construction at Alabama Drydock Co., Mobile. To be delivered October, 1956
Monterey, Humble & Seaboard DeLong design. 13′ x 100′ x 200′	Unannounced	To 90′	Being built by Healy Tibbitts, Raymond Concrete Pipe, and DeLong Corp.
Ocean Drilling & Exploration Company 120′ x 180′ x 10′	"St. Louis"	To 30′	Under construction at Alexander Shipyard, New Orleans. To be delivered July, 1956
Louisiana Offshore Drilling Company Friede & Goldman design, 180′ x 151′ x 12′	Not announced	To 65′	To be built by Ingalls

Drilling Tenders

Owner	Name	Water Depth	Present Status
CATC **Continental Oil Company**	"J. C. Craig"	50′	Block 45, B-1, West Delta Area.
Atlantic Refining Company **Tide Water Assoc. Oil Co.** **Cities Service Production Company** New tender, 260′ x 54′			
Same Companies as above New tender, 260′ x 54′	"Carle Sharp"	56′	Block 192, C-1, West Cameron Area, Louisiana
Same Companies as above New tender, 260′ x 54′	"Ernie Miller"	50′	West Delta, Block 44, Well A-2
Same Companies as above New tender, 260′ x 54′	"Jack Cleverley"		East Cameron, Block 66, Well A-2
Same Companies As Above New tender, 260′ x 54′	Unnamed		To be built by Levingston Shipbuilding Co., Orange, by July, 1956
The California Company Converted LST, 328′ x 50′	S-21	42′	West Delta, Louisiana, Noble Drilling Co.
The California Company Converted LST, 328′ x 50′	S-22	40′	West Delta, Louisiana, Loffland Bros. Rig.
The California Company Converted LST, 328′ x 50′	S-23	24′	Main Pass, Louisiana, Noble Drilling Co.
The California Company LST, 328′ x 50′	S-24	50′	West Delta, Louisiana, Noble Drilling Co.
The California Company LST, 328′ x 50′	S-25	25′	Main Pass, Louisiana, Loffland Bros. Rig.

The California Company LST, 328′ x 50′	S-26	38′	West Delta, Louisiana, Loffland Bros. rig.
Gulf Oil Corporation Converted LST, 328′ x 50′	"Eagle"	60′	Block 150 Ship Shoal Area
Gulf Oil Corporation New tender, 272′ x 60′	"Pelican"	45′	Block 130 Ship Shoal Area
Humble Oil & Refining Co. Converted LST, 328′ x 50′	ST-1	57′	South Pass
Humble Oil & Refining Co. Converted LST, 328′ x 50′	ST-2	60-65′	South Timbalier
Humble Oil & Refining Co. Converted LST, 328′ x 50′	ST-3	35-45′	Camanada Pass
Humble Oil & Refining Co. Converted LST, 328′ x 50′	ST-4	40-50′	Pelican Island
Humble Oil & Refining Co. Converted LST, 328′ x 50′	ST-5	40-50′	Grand Isle Area
Humble Oil & Refining Co. Converted LST, 328′ x 50′	ST-6	40-50′	Pelican Island
Humble Oil & Refining Co. Converted LST, 328′ x 50′	ST-7	40-50′	Grand Isle Area
Humble Oil & Refining Co. Converted LST, 328′ x 50′	ST-8	35-45′	Pelican Island
Kerr-McGee Oil Ind., Inc. Converted YF, 260′ x 48′	"Kermac I" Rig 16	43′	Drilling for Standard of Texas at Aransas Pass with Rig 16
Kerr-McGee Oil Ind., Inc. New tender, 250′ x 50′	"Kermac II" Rig 43		Drilling B-1 at Pure's Block 212, Galveston Area.
Kerr-McGee Oil Ind., Inc. Converted YF, 260′ x 48′	"Frank Phillips Rig 39		Drilling in Block 30, West Delta Area, for Humble.
Phillips Petroleum Company Converted YF, 260′ x 48′	"K. S. Adams" Rig 48	32′	Bay Marchand, Block 22
MCN GROUP: **Magnolia Petroleum Co.** **Continental Oil Co.** **Newmont Oil Co.** Converted YF	MDT-1	18′	Block 88, Eugene Island Block 110 Field, Well F-2
MCN Group Converted YF	MDT-2	41′	Well G-4, Eugene Island Block 126 Field, Block 126
MCN Group Converted YF	MDT-3	35′	Block 93, Ship Shoal Block 113 Field, Well B-2.
MCN Group Converted YF	MDT-4	52′	Block 113, Ship Shoal Block 113 Field, Well A-4
MCN Group Converted YF	MDT-5	25′	Well E-3, Block 63, Ship Shoal Block 72 Field
MCN Group Converted YF	MDT-6	36′	Block 119, Eugene Island, Block 126 Field, Well I-5
MCN Group Converted YF	MDT-7	19′	Block 55, Ship Shoal Area, Well A-1, wildcat.
Pure Oil Company Converted LST, 328′ x 50′	"R. W. McIlvain"	40′	Block 39 Field, D-1, Vermilion Area.
Zapata Off-Shore Company, Converted YF, 260′ x 48′	"Nola No. 1"		Drilling for CATC, Block 83, East Cameron Area.

First oil drilling barge ever built north of the Gulf Coast area is soon to be drilling in Louisiana swamplands. BARGE NO. 1, shown above on the Monongahela River in Pennsylvania, was built by Hillman Barge and Construction Company at Brownsville, Pa., for Carnes Weaver Barge Drilling Company of Houston, Texas. With drilling equipment designed for 20,000-foot wells, the barge is 185′ x 50′ x 12 feet. Hull slot is 10′ x 68 feet.

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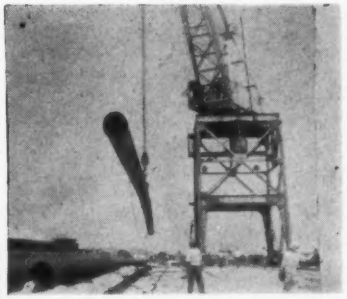

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Llano Drilling Company New tender, 260′ x 54′	"Clayton G. Dorn"	Being built by Levingston Shipbuilding Co.
Kerr-McGee Oil Ind., Inc. New tender, 250′ x 50′	Kermac III	Being constructed by Equitable Equipment Co., Madisonville, Louisiana
Reading & Bates, Inc.	"J. W. Bates"	To be built by Levingston, expected in June, 1956.
The Murmanill Corp. Converted tanker, 306′ x 48′	"Murmanill I"	Being converted by Bloodworth Shipyard, Inc., Houston
Union of California Converted LST, 328′ x 50′. Chartered from Stanolind	"Stanolind 50"	Block 126 Vermilion Area, Loffland Bros., contractor

Self-Contained Platforms

Company	Description	Year Built	Location	Depth of Water
CATC Continental Oil Co. Atlantic Refining Co. Tidewater Assoc. Oil Co. Cities Service Production Co.	220′ x 106′	1955	Block 47 Grand Isle, La.	95′
Same companies as above	110′ x 146′	1956	Block 43 Grand Isle	112′
Same companies as above	110′ x 146′ (To be installed)	1956	Block 40 Grand Isle	82′
Same companies as above	110′ x 146′ (To be installed)	1956	Block 59 West Delta	56′
Pure Oil Co.	100′ x 42′, with 80′ x 67′6″ pipe rack (Being installed)	1956	Block 32 Eugene Island Area, Well F-1.	10′
Humble Oil & Refg. Co.	110′ x 206′	1947	Block 18 Grand Isle, La.	50′
Magnolia Petroleum Co.	75′ x 398′	1954	State Tract 10, S.W. of Sabine Pass, Texas	30′
Magnolia Petroleum Co. (Southeastern Drilling Corp., Contractor)	52′ x 182′ and 55′ x 109′		Block 128, Eugene Island Block 128 Field, Well A-2	52′
Magnolia Petroleum Co.	54′ x 205′	1955	Block 119 Eugene Island Area, Well K-4	38′
Magnolia Petroleum Co. (Southeastern Drilling, contractor)	54′ x 205′	1955	Block 119, Eugene Island Area, Well J-2	37′
Phillips Petroleum Co.	85′ x 140′	1955	Block 184, Eugene Island area, company tools	
Phillips Petroleum	88′9″ x 140′	1955	Block 129-A, Eugene Island Area, La. Loffland Bros., contractor.	
Shell Oil Company	82′ x 197′	1955	Block 42, South Pass, La., (Loffland Bros. rig)	72′
Shell-Union	82′ x 196′	1955	Block 116 Eugene Island Area Platform A, Loffland Bros. Rig	48′
Shell Oil Company	82′ x 196′	1956	Block 116 Eugene Island Area. Platform B. Offshore Company rig.	50′
The California Co.	"L" Structure		Bay Marchand, Louisiana, Noble Drilling Co.	
Gulf Oil Corporation	120′ x 145′	1955	Block 154 Ship Shoal Area Salt Dome Production Co., contractor.	60′
Gulf Oil Corp.	120′ x 145′		Block 889 Mustang Island Area, Texas. Brewster-Bartle contractor.	46′
Pure Oil Company	106′ x 50′	1955	Block 47, Eugene Island Area, temporarily abandoned	22′
Max Pray	85′ x 195′	1955	Coon Pointe area	12′
May Pray	162′ x 70′ width at derrick, 120′ at pipe rack)	1955	Coon Pointe area	12′
Mecom Petroleums	82′ x 193′	1948	Block 45 West Cameron Area, company rig.	34′
The Superior Oil Co.	138′ x 326′	1955	West Cameron Block 72	48′
The Superior Oil Co.	144′ x 326′	1954	West Cameron Block 149	43′

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The 1700 Horsepower "GRAMPUS" . . .

Designed and built by Gulfport's tugboat construction specialists for G & H Towing Company's tidelands towing specialists

G & H Towing Company is renowned as towing specialists to the offshore oil industry . . . just as Gulfport Shipbuilding is renowned for building tugs of the finest performance, economy and craftsmanship.
The GRAMPUS is the first of three 105-foot 1700 horsepower super tugs to be built for the G & H Towing Company by Gulfport—and brings to an impressive total of 103 the number of 103 and 105-foot tugs built or under contract by Gulfport for the Navy and private industry.
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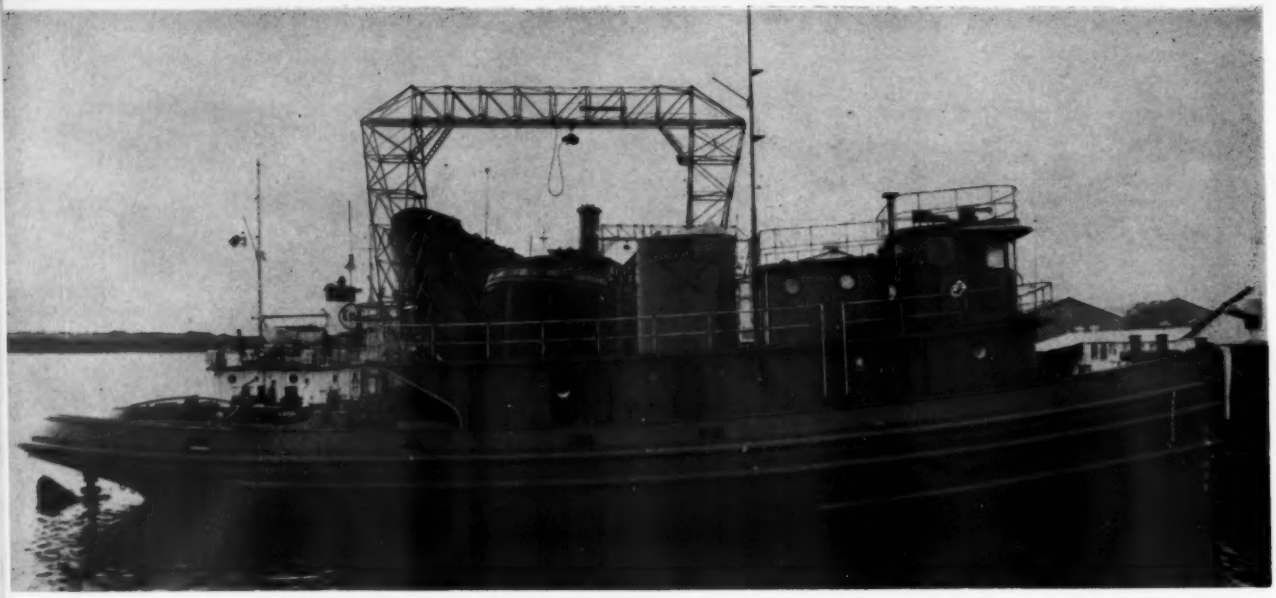


G & H "super-tug" GRAMPUS being outfitted at Gulfport Shipbuilding Corporation's Port Arthur shipyard. Automatic towing engine can be seen on the afterdeck.

G & H expands fleet with . . .

Super Tug "Grampus"

By ROGER HICKOK
Special Correspondent

THE GRAMPUS, a powerful new 1700 hp tug representing the results of many years of thoughtful planning by G & H Towing Company executives, will be commissioned April 14 at ceremonies to be held in the Houston Ship Channel at San Jacinto Battleground.

The **Grampus** is the first of three identical extra-heavy-duty 1700 hp all-steel tugs being custom built to exacting G & H specifications by Gulfport Shipbuilding Corporation of Port Arthur, Texas, for the demanding requirements of offshore oilfield and deep-sea service.

Power and dimensions . . . Equipped with a General Motors diesel engine rated at 1700 shaft hp, the **Grampus** is 105 feet long, with a beam of 27 feet and a draft of 14 feet when fully loaded with fuel, water and stores. Storage capacity sufficient for 30 days at sea will enable the **Grampus** and her sister tugs to handle towing operations to any part of the world.

Facilities . . . The **Grampus** will normally carry a crew of 11, but can easily sleep 15 in three staterooms topside, four below, plus an "owner's room" providing special accommodations for company executives who might accompany a towing operation. The handsomely finished quarters are completely air-conditioned to provide greater comfort to the crew on long hauls in the semi-tropical heat of Gulf and Caribbean waters.

The tugs are equipped with all-electric galleys, making it easier to cook three square meals a day for the crew, which can sometimes be a rigorous task in heavy weather.

Safety Equipment . . . The **Grampus** is fitted with the most modern navigational and safety equipment, including radar, gyrocompass and Iron-mike, ship-to-shore radio, fathometer and the most modern and efficient fire protection system. G & H has expanded their regular safety training program in the use of this new fire protection system to provide maximum safety when operating in distant waters.

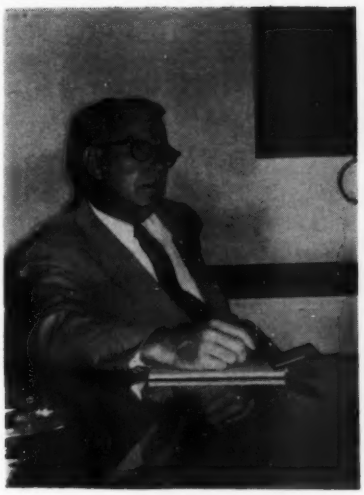
Towing engine . . . Another feature added for offshore and deep-sea service is the automatic towing engine on each of the new tugs, which carries 1800 feet of 1¾ inch ABS approved steel towing cable. The towing engine automatically controls tension on the towing cable giving the tug greater control of its tow in heavy weather.

After completion of the **Grampus'** sea trials March 21, Capt. N. G. Orange was assigned to command the tug, with R. C. Anders as chief engineer. Both are licensed officers with many years of Gulf and deep-water experience, and are old hands in G & H Towing Company operations.

New Additions . . . A powerful new 1250 hp tug is also under construction at Gulfport for G & H, which differs from the 1700 hp tugs by only a few feet in length and in hp rating. All of these super tugs are being built to the exacting standards of the American Bureau of Shipping, U. S. Coast Guard, and U. S. Public Health Service.

These new additions to the G & H fleet will provide offshore operators with the services of three extra-heavy-duty 1700 hp tugs, two in the 1100-1200 hp class, six in the 900 hp class and eleven in the 700 hp class—representing a combined rating of over 20,000 diesel engine hp in one fleet. The new boats, G & H officials believe, will round out the fleet to meet the requirements of any harbor, tidelands, deep-sea salvage or foreign towing operation.

Experience and "know-how" . . . Still in relative infancy in the history of the oil industry, tidelands operations in 1956 are expected to double those of 1955, predicated on getting sufficient offshore equipment



Capt. H. O. Weatherbee, executive vice-president and veteran of 29 years with G & H operational companies, directs the company's operations from his Galveston office.

E. D. Harlan, administrative officer and comptroller, is responsible for the multitude of details required in getting a tug supplied, manned and dispatched, within a few hours of a customer's order, at any hour of the day or night.

Capt. John G. Leech, director of marine operations, and his assistant, J. T. Westmoreland, studying the artist's painting of the new 1700 hp GRAMPUS.

to do the job. Although it's becoming a more common sight to see the oil industry fleet plying Gulf waters once frequented only by hardy tanker and shrimp boat seamen, it's still impressive to land-locked oilmen to see massive multi-million-dollar drilling platforms drift purposefully past under the seemingly effortless guidance of a tug that could easily be placed atop the towering platforms they tow. But the operation isn't as effortless as it appears, and calls for sturdy, well-equipped tugs and the seasoned experience of officers and seamen who know and understand winds and tides of the open sea, and can anticipate towing problems that might be involved.

With millions of dollars invested in offshore drilling equipment, oil operators realize this experience in moving their equipment is as important to reducing the hazards of offshore operations as the knowledge and experience required to drill their wells. With more than 35 years experience in Gulf Coast harbor and offshore towing, G & H Towing Company operators are recognized specialists in the marine towing problems of these waters. Operating from bases in Galveston, Houston and Corpus Christi, G & H has been expanding its fleet in recent years, as Gulf traffic demands have increased, and has been replacing older boats with newer, modern equipment.

Company history . . . Following World War II six steel Army DPC-type tugs(with 700 hp GM diesel engines, were added to the fleet. Four Army ST-type tugs, with 700 hp Busch-Sulzer engines were brought from San Francisco in 1947, and an ST-type tug with a 700 hp Clark engine were added the following year, providing a fleet of 11 modern diesel-powered tugs by the time offshore activity began to take shape.

Between 1949 and 1952 six new custom-built tugs, with 900 hp GM diesel engines, were added, and an Army LT-type tug of 1100 hp in 1955, making this 18 tug fleet the most modern and well-equipped towing operation in the Gulf of Mexico. The last tug, **Porpoise,** the largest in the fleet prior to addition of the new boats from Gulfport Shipbuilding Corporation, is also equipped with automatic towing engine, radar, and ship-to-shore radio, and has been used for much of the company's deep-water work, completing most recently a tow from Galveston to Port de France, Martinique.

The new 1250 hp **Marlin,** now under construction, will have a supply capacity for 20 days at sea, and is expected to join the G & H fleet September 14. The 1700 hp **Pike** is set for completion around October 25, and the 1700 hp **Ling** for next January. The addition of the four new tugs will bring the G & H fleet to 22 modern diesel-powered boats, and will represent one of the best-equipped fleets operating anywhere in the world.

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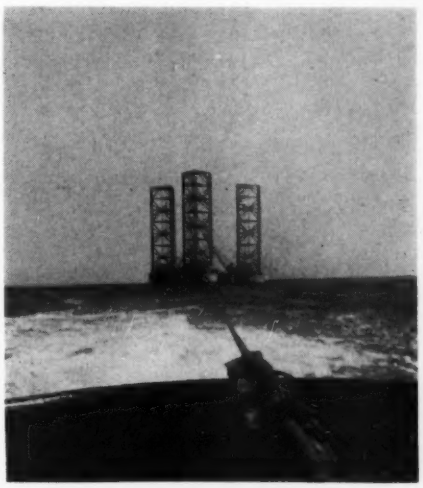
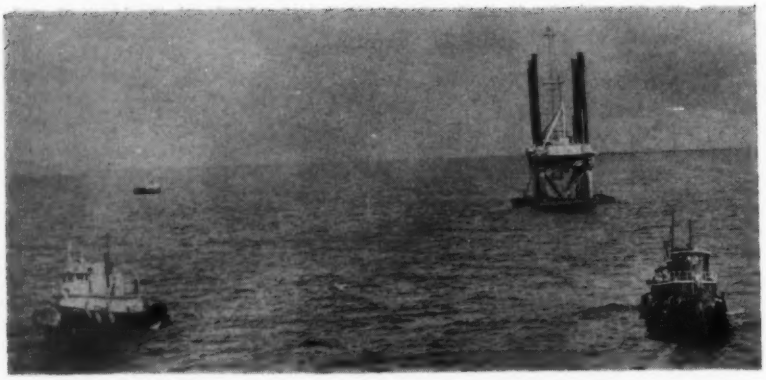


Zapata Off-Shore Company's new mobile drilling platform SCORPION, photographed from the MESSENGER, while under tow in the Gulf by G & H tugs MESSENGER and JENNIFER GEORGE.

Two identical 1700 hp tugs being built by Gulfport Shipbuilding Corporation . . . new construction will give G & H a fleet of 22 modern diesel-powered tugs



G & H Towing Company tugs PORPOISE and JENNIFER GEORGE tow Glasscock Drilling Company's MR. GUS to a deep-water location in the Gulf.

(continued from preceding page)

Personnel . . . As particular about qualifications of officers and seamen as with the seaworthiness of their boats, G & H maintains rigid requirements for crews, with all officers holding U. S. Coast Guard licenses.

A man who speaks with the authority of experience is Capt. H. O. Weatherbee, executive vice-president of G & H. A lieutenant commander in the Navy commanding transports during World War I, Capt. Weatherbee has been with G & H affiliate companies since 1927, and is one of only two captains in Texas still holding Unlimited Master of Sail and Master of Steam licenses.

Recognizing the vastly different problems involved in handling tremendously expensive offshore platforms of today, in the Gulf's treacherous water and wind currents, from the relatively simple harbor, river and coastal traffic of years past, Capt. Weatherbee takes pleasure in comparing the sleek, powerful 1700 hp **Grampus** and her sister ships to the old steam-powered round-bottomed wooden tugs of the twenties, which could rarely develop more than 600 hp.

A master mariner qualified to command anything afloat, Capt. Weatherbee compares the towing workboat of the marine industry to the cowhand's quarterhorse. Even the captain of a trans-ocean liner, without tug boat experience, might have as difficult a time maneuvering a tug as might a seasoned show ring horseman astride a nervous quarterhorse.

Capt. John G. Leech, director of marine operations, is also a strong believer in the experience factor for the greatest safety in offshore work. Holding an Unlimited Master's license himself, and tracing his seagoing ancestory back some 400 years to the master mariners of Ireland, Capt. Leech has been a seaman since 1925, and served as master of many ships of the wartime fleet for five years during World War II.

In charge of the company's marine operations in the offshore oil industry, Capt. Leech arranged the recent tow of Zapata's new mobile drilling platform **Scorpion** from Vicksburg to Galveston, which came off without a hitch due to the seasoned experience of the towing crew.

With G & H since 1945, Capt. Leech believes a thoroughly experienced towing crew, using the right equipment, can save the tidelands oil operator many working hours and operating dollars in handling offshore equipment.

Capt. Horace F. Styx, master of the company's **Jennifer George,** maintains experienced tug boat operators could spot a drilling platform on a dime, if need be. On hand during each of the moves of Glasscock Drilling Company's **Mr. Gus,** he has many times been given as little as 50 feet leeway to spot and hold the heaving platform for several hours, even in heavy seas, while spuds were being put down.

To maintain the high standards expected of G & H crews, the company operates an exclusive training program for unlicensed personnel to assist in obtaining licenses as soon as necessary sea experience has been gained. This program permits the majority of promotions to come from within the company, as new boats are added to the fleet.

Pioneers in Texas tidelands towing from the very start, members of the G & H fleet take pride in their experience and ability to handle anything that floats, which has been ably demonstrated in offshore towing operations for such companies as Continental Oil Company, Standard Oil Company of Texas, Kerr-McGee, Glasscock Drilling Company, Stanolind, Zapata Off-Shore Company, Ocean Drilling & Exploration Company, Sam Carline, Inc., Brown & Root, and Blue Goose Petroleum of South America.

With the boats of the G & H fleet capable of handling all possible towing requirements in oilfield areas, and with storage capacity of the new tugs enabling these boats to operate to all parts of the world, oil operators can depend on this modern fleet and its experienced officers and seamen to safely and efficiently tow anything that floats, any time, anywhere, to the very ends of the earth.

Automatic towing engine on PORPOISE, which is standard on new G & H "super-tugs." Engine handles 1800 feet of ABS approved 1¾ inch steel towing cable.

SCORPION rigging up in Galveston. Experienced G & H crews spotted the unit in this narrow slip at night, with barely a few feet clearance on either side.

Texas Statistics Now Completed

The Lone Star state has raked in almost $60 million from Gulf of Mexico acres since first lease in 1922

TEXAS, still somewhat of an offshore dark horse 16 years after its first tidelands test was finaled, has benefited almost $60 million worth from its Gulf of Mexico holdings.

Almost all of the receipts have been from bonus payments, with payments from royalties running neck and neck with fees paid to do seismographic exploration in the Gulf.

These facts are pointed out by a compilation of Gulf of Mexico statistics as of December 31, 1955, which has been made available by the General Land Office in Austin.

In the 34 years Texas has been leasing offshore acres the state has taken in approximately $55.3 million in bonus payments (average, $60.49 per acre); approximately $2.5 million in rental payments deposited to the Permanent School Fund; $370,682.29 in royalties; and $369,550 for seismographic fees.

Due the state from the Department of Interior "per Letter of Consent" is $245,493.43. Another $171,720 is in suspense pending final demarcation of the three-marine league boundary.

WELL INFORMATION	
Date of first lease	6/9/1922
Date of first well	8/13/1938
Date first production	5/10/1940
No. of wells drilled	61
No. of dry holes	42
No. of wells shut in	12
No. of wells producing	7
No. of leases producing	5

★ ★ ★

Texas Offshore Lease Statistics

As of December 31, 1955

	Leases issued since June 9, 1922	Leases active, this date	Acres leased since June 9, 1922	Acres under lease this date
Within the 3-marine league boundary	647	506	717,455.09	589,075.06
Divided by 3-marine league boundary	27	24	40,860.00	36,540.00
Beyond the 3-marine league boundary	108	88	157,500.00	128,700.00
Total	782	618	915,815.09	754,315.76

NOTE: Altogether, there are 2,608,774 acres with the three-marine league boundary and 15,097,234 acres on the continental shelf beyond the three-marine league line. Total on the Texas continental shelf is 17,706,008 acres.

Financial Return to State, Bonuses

	Receipts from leases	Average bonus per acre on leases
Within the 3-marine league boundary	$52,112,672.39	$73.62
Divided by 3-marine league boundary	929,604.80	22.75
Beyond the 3-marine league boundary	2,352,971.20	14.94

NOTE: Total bonus for the entire continental shelf was $55,395,248.39, for an average of $60.49 per acre.

Financial Return to State, Rentals

Deposited to Permanent School Fund through 1948	$ 460,738.75
Deposited to Permanent School Fund since 1948	2,069,281.10
Total rentals deposited to School Fund	$2,530,019.85
In suspense pending final demarcation of 3-marine league boundary	171,720.00
Due from Department of Interior per Letter of Consent	183,420.00

Financial Return to State, Royalties

Deposited to Permanent School Fund prior to June 5, 1950	$ 150,306.26
Deposited to Permanent School Fund since December 11, 1950	220,376.03
Total royalty deposits to School Fund	$ 370,682.29
Due from Department of Interior per Letter of Consent	62,073.43
Fees deposited for permits issued for Gulf seismic exploration	369,550.00
Total deposits to Permanent School Fund through December 31, 1955	$58,665,500.53

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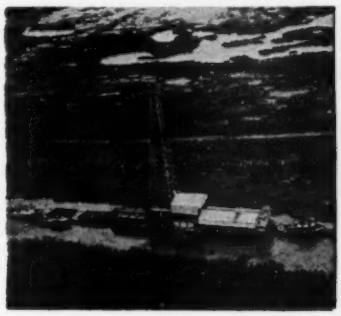

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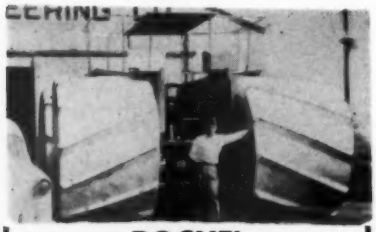

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Tom Lane, with Benjamin and Company, speaks at Hardy-Griffin open house. Co-designers of the HGT sealed tool joint are, second from left to right, John M. Hardy, Wilber H. Griffin, and William B. Taylor. Hardy is president and Griffin executive vice president of Hardy-Griffin.

High Pressure Joint

Use of Dupont Teflon in tubing joint gives tight seal, keeps pressure from reaching the threads

FIRST INTRODUCTION of a high pressure sealed joint to withstand high temperature for oil and gas wells is being made by the Hardy-Griffin Engineering Corporation in Houston.

The company, headed by John M. Hardy as president and W. H. "Bill" Griffin as executive vice-president, has started processing tubing with its "HGT Sealed Joint."

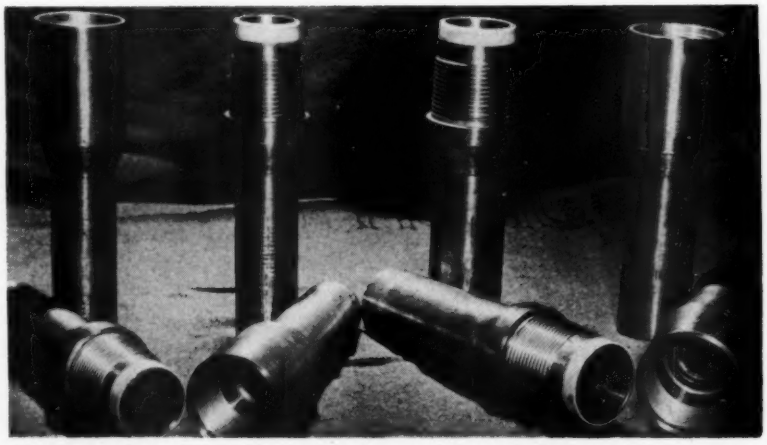
Hardy-Griffin's joint enables an operator to use a single string of tubing for high pressure production and/or slim hole drilling. The joint is as rugged as a drillpipe tool joint, and severe torque does not damage the thread.

Basis of the joint's properties is the special acid- and heat-resisting seal (to 574 degrees F.) made of Dupont Teflon. It effectively closes off pressure and permanently makes a tight seal.

Pressure does not reach the threads, and if damaged a new seal can be replaced at the well without special tools.

In the HGT sealed joint the pin and box are corresponding tapers with, on the pin, an auxiliary seal.

Chartered June 1, 1955, Hardy-Griffin has an initial investment of close to $1 million, including plant acreage and buildings and processing equipment.



Dupont Teflon, acid and heat-resisting, effectively closes off pressure and permanently makes a tight seal in special tubing joints now being made in Houston. The joint, made by Hardy-Griffin Engineering Corporation, is so designed that pressure does not reach the threads.

Service Personalities . . . in the news

R. K. Franklin

NOMADS Pick Franklin New Chairman of Regents

R. K. "Bob" Franklin of Houston, president and founder of Rolo Manufacturing Company, has been named chairman of the national board of regents of the Nomads, the National Oil-Equipment Manufacturers and Delegates Society.

The Nomads are a limited-membership group of men who have travelled outside the continental limits of the United States in the interest of oil equipment businesses or publications.

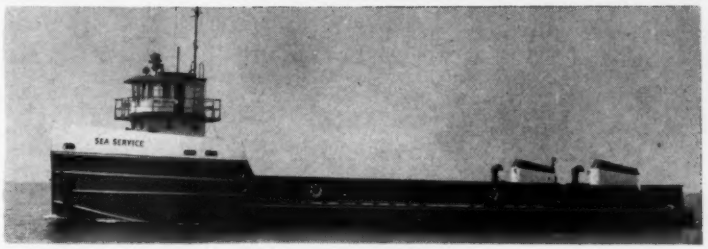
Succeeding James D. Hughes, with Lane-Wells in Los Angeles, Franklin took office March 1.

Grant Oil Tool to Expand Its Gulf Coast Service

Grant Oil Tool Company of Los Angeles has announced immediate expansion of its service coverage in the Gulf Coast area.

To provide more complete Gulf Coast field service, Grant has opened new service facilities and a warehouse at Harvey, Louisiana. John Kinkaid has been transferred from Lafayette to Harvey, where he will manage the company's new facilities on Peters Road.

New field representative for Grant at Lafayette is Joe Jennings, transferred to his present post from the Los Angeles branch. Jennings' wide experience in the application of down hole expansion tools enlarged Grant's technical service to Gulf Coast customers.



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This 135-ft. supply ship, the first of three being built by the Arnold V. Walker Shipyard for Sea Service, Inc., is a distinguished addition to the offshore fleet. A second 135-foot supply ship will be delivered to Sea Service, Inc., November 1.... Experience plus engineering and designing ability enables the Arnold V. Walker Shipyard to build anything for offshore use. If you are interested in one shipyard that can handle all your construction problems . . . call us!

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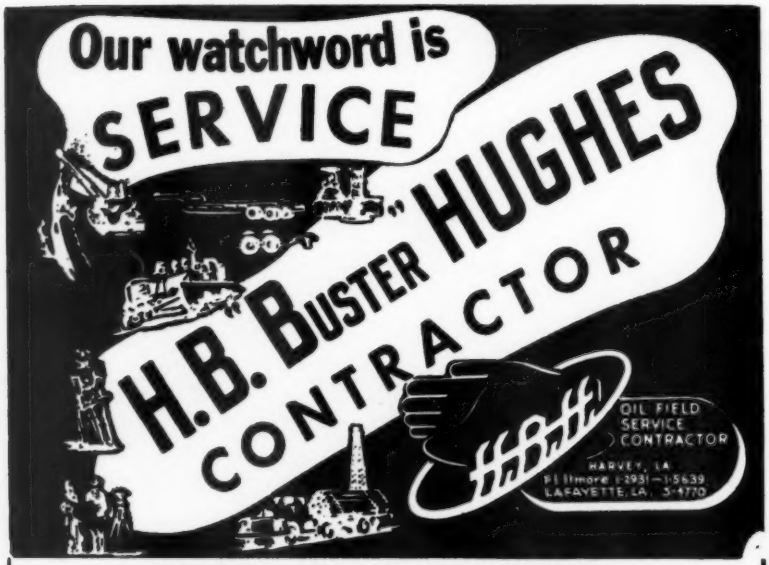

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Soil Mechanics . . .

(continued from page 72)

fore it gets into the weak natural materials. Potential increase in bearing capacity made possible by such blankets is relatively small for large footings.

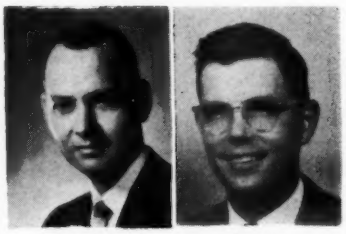
Vertical load carrying capacity of a footing can be increased by dredging in. Alternately, controlled overloading of the footing can be employed to force it deeper into the soil.

Both methods place the footing on stronger material than that at the surface. Buoyant weight of the displaced soil also increases capacity of the footing.

Burying the footing increases resistance to sliding, because soil at the sides must be pushed ahead of the footing for it to slide.

Skirts or cleats around footings also give sliding resistance. Encircling skirts may penetrate far enough into the soil to reach a stronger layer where resistance to sliding is greater. In areas where soil strength does not increase with depth, skirts have small effect on sliding resistance.

Contemporary designs for mobile structures using spread footings are proving satisfactory with respect to simple vertical loads. Design improvements are needed to meet increased bearing stress under overturning forces and to prevent sliding under horizontal forces in very soft soil.



McClelland Focht

THE AUTHORS

Bramlette McClelland and John A. Focht Jr. both hold Master of Science in Civil Engineering degrees, and both of them specialized in soil mechanics and foundation engineering.

McClelland, principal in the firm of McClelland Engineers of Houston, received his M.S. in C.E. degree from Purdue University in 1942.

Focht, senior soils engineer for McClelland Engineers, received his M.S. in C.E. degree at Harvard in 1947.

NEW PRODUCTS and Literature

Horsepower Increase Is Announced For White Superior Diesel Engines

UP TO 30 per cent increase in power, and substantially improved performance of White's Superior drilling engines has been achieved with practically no increase in size or weight, and with a major gain in the engines' operating economics, according to William F. Burrows, White Diesel Engine Division's general manager.

The new, increased horsepower ratings are based on continuous performance tests of the engines, equipped with all accessories and operating at 900 rpm. The PTD (naturally aspirated) six-cylinder model is now rated at 364 hp, the eight cylinder model at 485 hp. The PTDS (supercharged) six cylinder model is now rated at 560 hp, the eight cylinder model at 750 hp.

Burrows said the higher horsepower rating, greater operating economies and smoother performance are due to improvements in supercharging and exhaust manifolding, and the combination of the following engineering improvements and modifications to the Superior engine's basic design: improved open chamber combustion system; more rigid camshaft with improved drive; counterweighted, statically and dynamically balanced crankshaft; more rigid box-type base fully supporting crankshaft; cylinder block design simplifying servicing; newly designed iron alloy pistons; forged steel connecting rods; individual two-valve cylinder heads; positively rotated valves of special alloy; and improved, full pressure lubrication system.

A new bulletin, "No. 105," that fully describes all the engineering achievements of this Superior diesel engine has been prepared.

For more information check ITEM 1
INQUIRY CARD PAGE 84

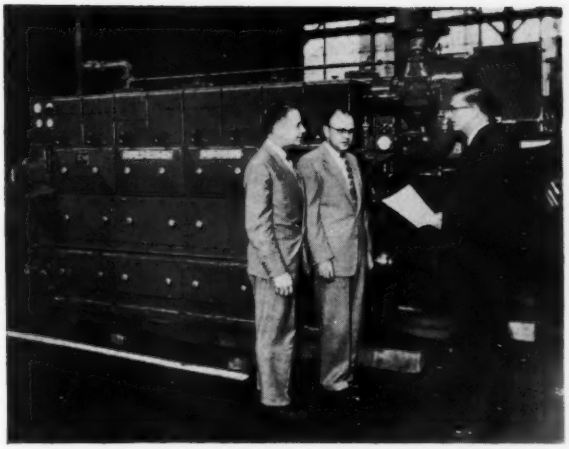
United Chemical's Ke-Tone Removes, Prevents Hard Water Scale Build-up

A new product called "Ke-Tone" is now available for prevention or removal of hard water scale build-up due to ferric oxide, sulfates or carbonates. It was developed as a result of recent advances in the fields of chelate and surface chemistry.

"Ke-Tone" is added to the water at the rate of one pound to 200,000 grains of contained water hardness or from three to five ppm—whichever gives the higher concentration. During treatment, continuous or frequent blow-downs keep the hardness at reasonable levels and when the system is free of scale, the hardness will return to its initial value.

"Ke-Tone" suspends scale particles in all areas that favor precipitation and allows the scale to dissolve. It does not, however, let calcium or magnesium come out of solution.

The principle which makes the compound function



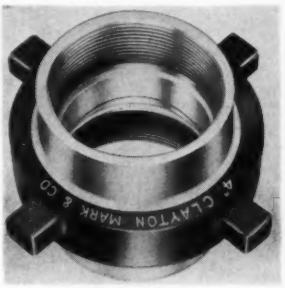
Company officials beside White Diesel Engine Division's newly improved drilling engine. Left to right are Harvey W. Hanners, chief research engineer, J. H. Newton, sales manager, and William F. Burrows, general manager.

is not limited to large volume systems but can be used in engine cooling systems and high pressure boilers. The United Chemical Corporation is the manufacturer.

For more information check ITEM 2
INQUIRY CARD PAGE 84

Clayton Mark & Company Makes New Four-Inch Handle-bar Union

A new four-inch, 1,000-pound cwp handle-bar union for piping to 1,000 pounds cold working pressure is being manufactured by Clayton Mark & Company.



The five-inch height, 15-pound weight, four-lug nut, API threaded ends and an interchangeability factor combine to provide greater ease of handling and convenience for piping problems. A bulletin containing detailed illustrations, specifications, complete technical information and prices has been made available.

For more information check ITEM 3
INQUIRY CARD PAGE 84

Plastic Splicing Kit Makes Possible Fast, Moisture-Proof Field Splicing

A NEW SPLICING KIT which makes moisture-proof splices (for cathodic protection installation) that can be insulated in less than 10 minutes has been developed by Minnesota Mining and Manufacturing Company.

Designed for low voltage applications in rectifier ground bed systems, the kit consists basically of a single-use plastic mold and an envelope of self-mixing insulating resin. This resin, a synthetic, thermosetting plastic,

(continued on next page)

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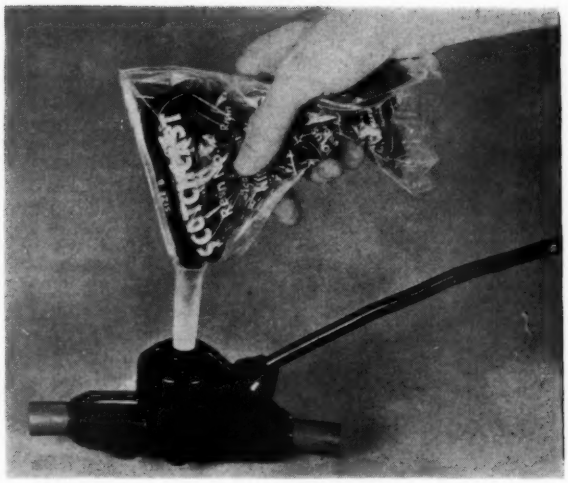

In use, the halves are placed together over wire to be spliced, the spout inserted, and plastic poured into it from a special container. Heart of the kit is the "Unipak" container, which contains resin on one side of the built-in plastic divider and activator on the other.

(continued from preceding page)

hardens into a permanent jacket, sealing out moisture and eliminating electrical leakage.

The company says the kit is so simple that even inexperienced splicers can now insulate a splice with professional results in minutes without special tools. It has been field tested and used successfully in several rectifier ground bed and offshore installations.

While epoxy resins are widely used as electrical insulation material, it previously has been impossible to mix and use them under field conditions. However, with the firm's patented self-mixing package, called the Unipak container, the two-part material can be mixed accurately and easily right in the package.

The Unipak container is a plastic envelope in which epoxy resin and activator are separated by a divider strip. The user pulls on the sides of the container, breaking the divider and allowing the resin and activator to mix. Mixing is completed by kneading the container until the different colored resins and activator achieve a uniform color blend.

The epoxy resin stays hard permanently and will not soften even under application of heat, pressure or through aging. After curing, the resin normally is unaffected by crude oil, petroleum, solvent and most chemicals. This "Scotchcast" splicing kit 90-B1 can be used on cables having outside diameters of 0.35 inches to 0.80 inches for the branch and 0.50 inches to 0.80 inches for the feeder and can be used on splices made with all conventional connectors.

For more information check ITEM 4
INQUIRY CARD PAGE 84

Hydraulic Pressure Exchange Pump For Injurious Muds Is Announced

Manton-Gaulin Manufacturing Company announces a new hydraulic pressure exchange pump for pumping abrasive and corrosive muds, slurries and solutions.

Its design eliminates plungers and packing and separates product being pumped from contact with mov-

ing parts. The pump handles corrosive and erosive materials at high temperatures. It operates at pressures up to 2,000 psi and capacities up to 120 gpm, with uniform discharge. The extremely slow cycling of the pump is said to increase check valve life several hundredfold. Details and operating principles of the pump are covered in a new bulletin, numbered "HPX-55."

For more information check ITEM 5
INQUIRY CARD PAGE 84

Baldt Publishes New Brochure About Anchors and Anchor Chains

Baldt Anchor, Chain & Forge Division of Boston Metals Company now has ready for distribution a new brochure on anchors and anchor chains. Included are tables and dimensions of Baldt products together with descriptive material and illustrations.

For more information check ITEM 6
INQUIRY CARD PAGE 84

Hastings Instrument Company Offers Smaller Improved Raydist Equipment

The Hasting Instrument Company released information on their miniaturized, improved Raydist equipment, including a new dynamic phasemeter and plotter.

The new Raydist phasemeter's tests show that accuracy on good signals has been increased three times over the previous unit and even more on poor signals because its accuracy is less affected by signal strength. Only 80 watts and eight less tubes are required for its operation. The new model can follow more rapidly changes in phase and has much less lag. The unit reduces the weight to one-half and the space requirements to one-fourth of the previous units.

Being small and automatic, the new Raydist plotter allows the pilot of a ship or aircraft to see constantly his position plotted on a chart. The reduced size and weight of the plotting board has widened the plotter's application.

For more information check ITEM 7
INQUIRY CARD PAGE 84

B and W Stabilock Makes Possible Improvement in Primary Cementing

B and W Stabilock provides an improved means for holding the casing away from the formation for an equalized cement column. It also locks the casing joints together to prevent breaking or unscrewing during drilling operations.

The straddle type Stabilock is welded into place over the casing coupling, locking the casing joints together. The short type Stabilock is welded into place where the casing joint meets the guide shoe. The long type Stabilock ties the float collar, second casing joint and casing coupling together.

For more information check ITEM 8
INQUIRY CARD PAGE 84

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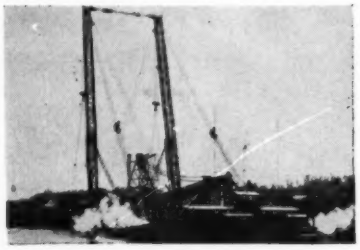

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Western Geophysical Men Get Awards for Safety

Five men of Western Geophysical Company of America's Party No. 78, located south of Morgan City, La., have received safety awards.

Party members with accident-free records were Joe Gable, seven years, J. A. Rasmussen, five years, Paul Drennon, two years, and Paul Marceaux and J. B. Green, each one year.

Salt Dome Opens New Office at Morgan City

A Morgan City, Louisiana, office has been opened by Salt Dome Production Company, Houston drilling contracting firm.

The office is upstairs over Michel's Meat Market on Front Street. Salt Dome is currently drilling for Gulf Refining Company in the Ship Shoal Area.

Marine superintendent for the office is F. W. Markham. R. B. Cordray is port captain.

Schooler New Chief Clerk For Kermac at Morgan City

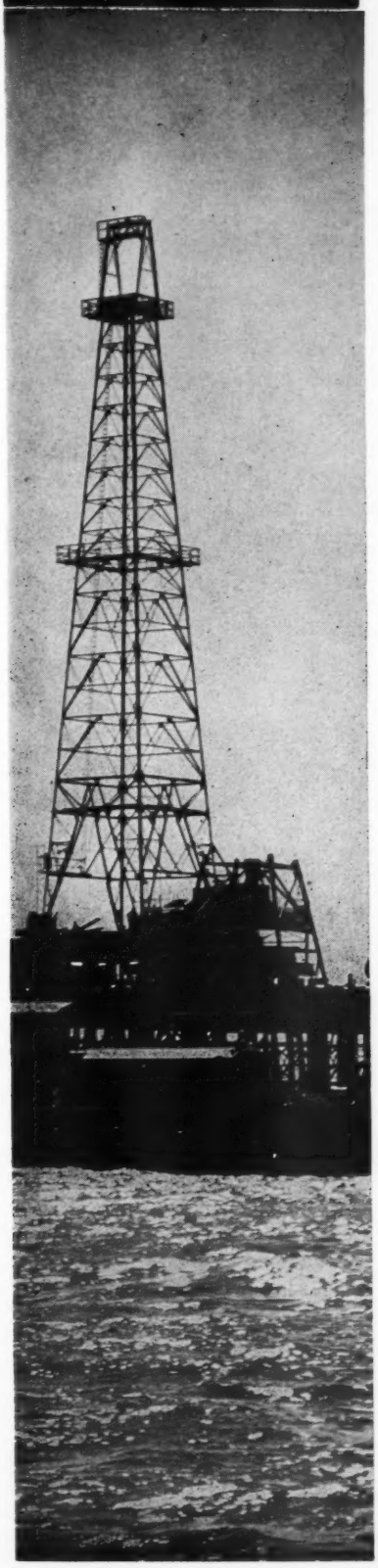
New chief clerk for the drilling department of Kerr-McGee Oil Industries, Inc., at Morgan City, La., is I. L. (Steve) Schooler. He was promoted from the position of materials control chief in company headquarters at Oklahoma City, Okla.

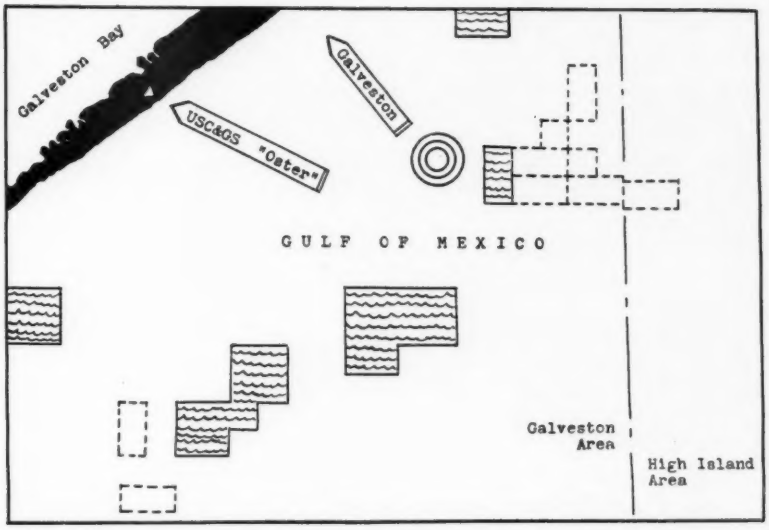
Schooler's position is a new one created to meet Kerr-McGee needs in expanding drilling activity in southern Louisiana. Morgan City is headquarters for about 400 Kermac personnel in drilling, production, and marine departments.

Harvey Store Appointed Bendix-Marine Dealership

The newly opened Harvey, Louisiana, branch of Kennedy Marine Supply of Biloxi, Mississippi, has been appointed a dealership for Bendix-Marine of North Hollywood, California.

Wes Courson is manager for the Kennedy store, at Harvey, which is on St. Joseph Street and will carry a complete line of Bendix - Marine products, including radar, automatic pilots, echo depth sounders, radio telephones, radio direction finders, portable electric generators and outboard motor tachometers.





Texas federal lease blocks may attract spirited attention next May at a Department of the Interior sale. The tracts, dashed lines, are in heavily leased areas within a few miles of Pure Oil Company's GAB 189 field, triple circle. Most of them are close to blocks, wiggly lines, for which Humble Oil & Refining Company has requested Corps of Engineers permits in recent months. (See stories pages 31 and 91).

Strike Finaled 40 Miles Out

Phillips discovery makes calculated 65 million cubic feet of gas, sets distance from shore record for producers

A Phillips Petroleum Company wildcat which once held the dis-distance-from-shore record has been finaled as a Miocene gas-distillate discovery. Calculated open flow for the new well, No. A-1 Dome "A" Block 184, is 65 million cubic feet of gas daily with 20 barrels of distillate per million—or 1,300 barrels total.

No. A-1 is in the Eugene Island Area, 40 miles off St. Mary Parish.

Flow through an undesignated choke and perforations between 14,808-836 feet was at the rate of 138 barrels of 49.1 gravity distillate and 6.9 million cubic feet of gas daily.

There were also shows between 14,578-708 feet, but they will not be tested at present.

Phillips will drill a northwest offset to the strike from the same platform, as well as a project on the same structure two miles north-northwest in Block 172. The company has a 10,000-acre lease block in the vicinity.

Phillips Gets 572-Barrel Well

No. 1 Eugene "A" opens new pay south of Eugene Island Block 128 field, encounters 78 feet of pay in three zones

A 572-barrel new pay opener has been completed south of the Eugene Island Block 128 field, about 30 miles off the coast of St. Mary Parish, by Phillips Petroleum Company.

On potential test the No. 1 Eugene "A" flowed 572 barrels of 34.5 gravity oil plus 718,000 cubic feet of gas daily through a 10/64-inch choke and perforations between 12,939-948 feet. Tubing pressure was 3,730 pounds.

The well encountered 78 feet of pay sand in three zones. The two shallower sands have not been tested.

No. 1 Eugene "A" is in block 129-A, about 3,000 feet south of Magnolia Petroleum Company's No. 1-B State Lease 696 oiler. The new discovery went to 13,550-feet in the Lower Miocene.

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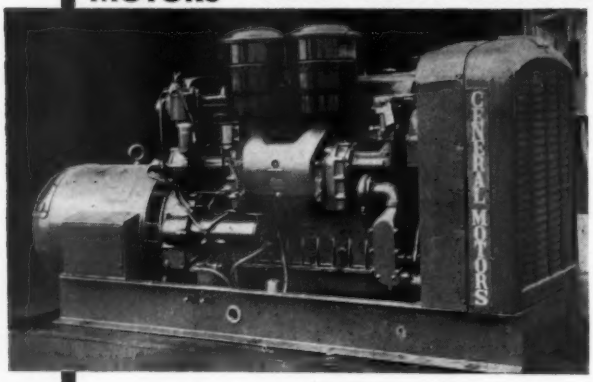

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California

Site Chosen for California's Second Marine Drilling Island

The floating core-drilling vessel Rincon has tested oil in a 4,100-foot "oil well" off the Rincon field, and Richfield Oil Corporation set April 1 as deadline for bids on a 200' x 200' earth-filled drilling island.

It will be California's second such island.

Test was made through an unreported set of perforations and the hole then pumped full of cement and abandoned.

Shallower Pay Zone Found By Monterey at Seal Beach

A shallow pay zone has been opened by Monterey Oil Company at its granite drilling island off Seal Beach.

Monterey No. 1 Monterey-Texas went to 3,965 feet total vertical depth and on test produced 347 barrels of crude by gas lift in 24 hours.

Only other zone in the field is 6,000 feet deep, and 10 producers are now completed from it.

Louisiana

South Timbalier Block 54 Field Gets New Oil Horizon

A new pay in the South Timbalier Block 54 field off Terrebonne Parish was opened by Humble Oil & Refining Company No. A-4 State Lease OCS 019.

The discovery made 143.34 barrels of oil and 60,000 cubic feet of gas daily through a 1/8-inch choke and perforations between 7,812-30 feet. Gravity of the oil was 35.9. Tubing pressure was 975 pounds.

The field also has pay between 6,854-66 feet and 6,591-605 feet.

CATC Confirms Block 84 With 439-Barrel Oil Well

A 439-barrel well has confirmed the CATC Group's West Delta Block 84 field, off Plaquemines Parish.

The new producer, No. 2 State Lease 2551, flowed at that rate through a 10/64-inch choke and perforations between 11,030-042 feet. Tubing pressure was 2,375 pounds, gas-oil ratio 801-1. Total depth is 11,344 feet.

CATC's No. 1 State Lease, field opener, made 267 barrels through a 10/64-inch choke and perforations between 10,875-862 feet.

Gas-distillate Strike Finaled In Eugene Island by Texas Co.

A Texas Company wildcat in Block 27 of the Eugene Island Area off St. Mary Parish has become a gas-distillate strike.

The No. 1 USA-OCS 0312 flowed at the rate of 21 barrels of 51.1 gravity distillate plus 2,054,000 cubic feet of gas through a 10/64-inch choke and perforations between 10,475-90 feet. Working pressure was 3,900 pounds. There was no water.

Texas

High Island Block 10-L Field Gets New Pay Zone

An additional producing sand for the High Island Block 10-L field off Jefferson County, Texas, has been found by Magnolia Petroleum Company.

Magnolia's No. A-5 Texas Gulf, Tract 10, on open flow made 57 million cubic feet of gas daily, with a shut-in tubing pressure of 3,662 pounds, through perforations between 8,760-775 feet. The test had gone to 11,811 feet and plugged back.

Humble Asks Four Structure Permits In Galveston Area

Humble Oil & Refining Company is seeking four new Corps of Engineers permits to erect drilling structures within a 25-mile radius of Galveston.

The requests bring to seven the separate groups of blocks off Galveston for which the Houston firm has asked permits. It has already spotted two wildcats, one of them early in March.

Humble recently asked permits on:

1) Small state tracts 158 and 159, about 16 miles northeast of Galveston.

2) Large blocks 240, 241, and the north half of block 255, about 16 miles southeast of Galveston.

3) Northwest quarter of 146 (L), south half of 146 (L), north half of 150 (L), nine miles east of Galveston.

4) Southeast quarter of 190 (L) and northeast quarter of 211 (L).

Humble will drill its No. 1 State Tract 247 (L) (31706) 700 feet from the east and 3,200 feet from the south line of the southwest quarter of block 247. It is to go to 8,500 feet.

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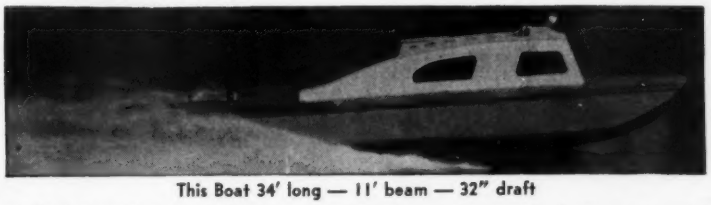

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OFFSHORE LOCATIONS

TEXAS

Galveston County: Humble Oil & Refining Co. 1 State Tract 247-L (31706), wildcat. Block 247 (L) Galveston Area, 26 miles southwest of Galveston. Proposed depth 8,500 feet.

Kleberg County: Standard Oil Co. of Texas 24 State Tract 953, Chevron field. Block 953 (S), Mustang Island Area, 30 miles southwest of Port Aransas. Proposed depth 8,700 feet.

Kleberg County: Standard Oil Co. of Texas No. 58 State 932, wildcat. Block 932 (S), Mustang Island Area 10 miles northwest of Flour Bluff. Proposed depth 11,500 feet.

Matagorda County: Shell Oil Co. 1 State Tract 487, Kain. Block 487 (S), Brazos Area, seven miles southeast of Matagorda. Proposed depth 8,000 feet.

LOUISIANA

Cameron Parish: CATC 1-A OCS-090-State Lease, 1203, East Cameron Block 62. Block 66, East Cameron Area. Proposed depth 7,000 feet.

Cameron Parish: CATC D-1 OCS 0187 (State Lease 1632), wildcat. Block 83 East Cameron Area, four miles southeast of West Cameron Block 192 field. Proposed depth 14,000 feet.

Cameron Parish: Mecom Petroleums A-8 State Lease 1133, wildcat. Block 15 West Cameron Area, near Sabine Pass. Proposed depth 9,500 feet.

Cameron Parish: Mecom Petroleums 1 State Lease 784, wildcat. Block 16 West Cameron Area, near Sabine Pass. Proposed depth 11,500 feet.

Cameron Parish: Mecom Petroleums A-8 State Lease 1133, West Cameron Block 45. Block 45, West Cameron Area. Proposed depth 9,000 feet.

Jefferson Parish: Humble Oil & Refining Co. G-5 State Lease 798, Grand Isle Block 18. Block 10, Grand Isle Area. Proposed depth 10,000 feet.

Lafourche Parish: The California Co. L-9 State Lease 1367, Bay Marchand Block 2. Block 3, Bay Marchand Area. Proposed depth 4,363 feet.

Lafourche Parish: The California Co. L-12 Louisiana State 1365, Bay Marchand Block 2. Block 1, Bay Marchand Area. Proposed depth 4,650 feet.

Plaquemines Parish: The California Co. C-2 State Lease 1069 OCS 0385, West Delta Block 30. Block 29, West Delta Area. Proposed depth 7,900 feet.

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Plaquemines Parish: The California Co. 1-D Louisiana State 1069-OCS 0385, West Delta Block 30. Block 29, West Delta Area. Proposed depth 12,000 feet.

Plaquemines Parish: The California Co. 2 Louisiana State 2553, South Pass Block 41. Block 41, South Pass Area. Proposed depth 10,200 feet.

Plaquemines Parish: The California Co. 13 Louisiana State 1354, Main Pass Block 69. Block 68, Main Pass Area. Proposed depth 8,100 feet.

Plaquemines Parish: CATC 3-A State Lease 819 OCS 026, West Delta Block 30. Block 30, West Delta Area. Proposed depth 10,500 feet to test the Miocene.

Plaquemines Parish: CATC 3 State Lease 2551, West Delta Block 84. Block 84, West Delta Area. Proposed depth 11,000 feet to test the Miocene.

Plaquemines Parish: Humble Oil & Refining Co. 2-A State Lease 2716, South Pass Block 20. Block 31, South Pass Area. Proposed depth 12,000 feet.

Plaquemines Parish: Kerr-McGee Oil Industries, Inc., 1-D State Lease 1268, Main Pass Block 47. Block 47, Main Pass Area. Proposed depth 8,500 feet.

Plaquemines Parish: Shell Oil Co. 6 State Lease 1007, South Pass Block 24. Block 23 South Pass Area. Proposed depth unannounced.

Plaquemines Parish: Shell Oil Co. 7 State Lease 1007, South Pass Block 24. Block 23 South Pass Area. Proposed depth unannounced.

Plaquemines Parish: Shell Oil Co. 22 State Lease 1009, South Pass Block 24. Block 25, South Pass Area. Proposed depth 10,000 feet.

Plaquemines Parish: Shell Oil Co. 30 State Lease 1008, South Pass Block 24. Block 24, South Pass Area. Proposed depth 7,700 feet.

Plaquemines Parish: Shell Oil Co. 2 State Lease 1011 (OCS 0350), South Pass Block 27. Block 27, South Pass Area. Proposed depth 9,350 feet.

Plaquemines Parish: Shell Oil Co. 11 State Lease 1012 OCS 0353-Block 28. Block 27, South Pass Area. Proposed depth 8,100 feet.

St. Mary Parish: Magnolia Petroleum Co. 4-K State Lease 691-Block 119, Eugene Island Block 126. Block 119, Eugene Island Area. Proposed depth 6,500 feet.

St. Mary Parish: Magnolia Petroleum Co. 5-K State Lease 691, Eugene Island Block 126. Block 119, Eugene Island Area. Proposed depth 7,000 feet.

St. Mary Parish: Magnolia Petroleum Co. 2-A State Lease 695, Eugene Island Block 128. Block 128, Eugene Island Area. Proposed depth 9,500 feet.

St. Mary Parish: Phillips Petroleum Co. A-1 Eugene OCS-0472, Eugene Island Block 184. Block 184, Eugene Island Area. Proposed depth 15,500 feet.

St. Mary Parish: Shell Oil Co. 1 Shell-Humble OCS 0443 wildcat. Block 188, Eugene Island Area. Proposed depth 13,000 feet.

St. Mary Parish: Magnolia Petroleum Co. I-3 State Lease 691, Eugene Island Block 126. Block 119, Eugene Island Area. Proposed depth 5,000 feet.

St. Mary Parish: Magnolia Petroleum Co. 2-J State Lease 691, Eugene Island Block 126. Block 119, Eugene Island Area. Proposed depth not reported.

Terrebonne Parish: Gulf Refining Co. A-1 OCS 0498, wildcat. Block 128 South Timbalier Area. Proposed depth 10,000 feet.

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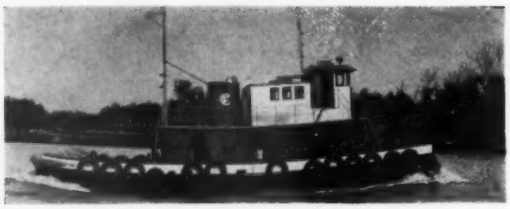

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Terrebonne Parish: Magnolia Petroleum Co. 1-B State Lease 761, wildcat. Block 54, Ship Shoal Area. Proposed depth 15,000 feet.

Terrebonne Parish: Gulf Refining Co. C-1-D OCS 0420, Ship Shoal Block 154. Block 154, Ship Shoal Area. Permit to dually complete.

Terrebonne Parish: Gulf Refining Co. 3-A OCS 0419, Ship Shoal Block 154. Block 154, Ship Shoal Area. Proposed depth 6,500 feet.

Terrebonne Parish: Gulf Refining Co. 3-C Block 154-OCS 0420, Ship Shoal Block 154. Block 154, Ship Shoal Area. Proposed depth 7,000 feet.

Terrebonne Parish: Magnolia Petroleum Co. 4-A State Lease 777, Ship Shoal Block 113. Block 113, Ship Shoal Area. Proposed depth 8,500 feet.

Terrebonne Parish: Gulf Refining Co. 1-F OCS 0453, Ship Shoal Block 154. Proposed depth 14,000 feet.

OFFSHORE COMPLETIONS

TEXAS

Jefferson County: Magnolia Petroleum Co. A-5 Texas Gulf, Tract 10, New Pay Opener in High Island Block 10-L field. TD 11,811 feet in the Miocene, perfd. 8,760-775 feet. PT 4,862 MCFGD and 27.94 BD on adjustable choke. Open flow 57 million CFGD. TP 2,966. Block 10, High Island Area.

Jefferson County: Standard Oil Co. of Texas 1 Federal 52, wildcat. Dry Hole. TD 11,671 feet. Block 52, High Island Area.

LOUISIANA

Cameron Parish: Gulf Refining Co. 1-A OCS 0408 (Block 253), wildcat. Dry Hole. TD 12,238 feet. Block 253, West Cameron Area.

Jefferson Parish: Humble Oil & Refining Co. F-3-A State Lease 797-OCS 035, Grand Isle Block 18. Oil Well, Dual Completion. TD 11,377 feet. Perfs. 10,520-550 feet, PT 219.4 BOD & 135 MCFGD on 1/8-inch choke. Gra. 24.9. Perfd. 10,686-716 feet, PT 198 BOD & 119,500 CFGD on 1/8-inch choke. Gra. 25. Block 9, Grand Isle Area.

Jefferson Parish: Humble Oil & Refining Co. J-4 State Lease 804, Grand Isle Block 16. Dual Oil Well. TD 9,907 feet. Perfd. 8,080-105 feet, PT 189 BOD plus 95 MCFGD on 1/8-inch choke. Gra. 34.3. Perfd. 7,800-25 feet, PT 150.6 BOD and 56,100 MCFGD on 1/8-inch choke. Gra. 34.4. Block 23, Grand Isle Area.

Jefferson Parish: Humble Oil & Refining Co. G-4 State Lease 798-OCS 036-Block 10, Grand Isle Block 18. Dry Hole. TD 8,656 feet. Drilled out and will sidetrack to drill G-4-A. Block 10, Grand Isle Area.

Lafourche Parish: The California Co. L-10 State Lease 1365, Bay Marchand Block 2. Dry Hole. TD unreported. Block 1, Bay Marchand Area.

Plaquemines Parish: Shell Oil Co. 27 State Lease 1008-OCS 0350, South Pass Block 24. Oil Well. TD 6,811 feet, perfd. 6,668-75 feet. PT 229 BOD on 9/64-inch choke. GOR 200-1 Gra. 34.2. Block 24, South Pass Area.

Lafourche Parish: The California Co. L-8 State Lease 1367-OCS 0370-Block 3, Bay Marchand Block 2. Oil Well. TD 4,790 feet, perfd. 4,364-88 feet. PT 50 BOD, choke unreported. Gra. 36.1. Block 3, May Marchand Area.

Lafourche Parish: The California Co. 1 Louisiana State 1482 et al, Bay Marchand Block 2. Oil Well. TD 10,055 feet, perfd. 9,765-84 feet, 9,775-87 feet. PT 92 BOD & 894,000 CFGD on unreported choke. Gra. 22.3. Block 1, Bay Marchand Area.

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Plaquemines Parish: Shell Oil Co. 40 State Lease 998, South Pass Block 24. Oil Well. TD 9,699 feet, perfd. 7,856-64 feet. PT 211 BOD on 15/64-inch choke. Gra. 39. Block 11, South Pass Area.

Plaquemines Parish: Shell Oil Co. 28 State Lease 1008-OCS 0350, South Pass Block 24. Oil Well. TD 7,300 feet, perfd. 7,131-37 feet. PT 235 BOD on 10/64-inch choke. GOR 277-1. Gra. 39. Block 24, South Pass Area.

Plaquemines Parish: Shell Oil Co. 39 State Lease 998, South Pass Block 24. Oil Well. TD 9,636 feet, perfd. 9,557-62 feet. PT 263 BOD on 10/64-inch choke. GOR 159-1. Block 11, South Pass Area.

Plaquemines Parish: Shell Oil Co. 30 State Lease 998, South Pass Block 24. Dual Oil Well. TD 9,950 feet. Perfd. 9,560-70 feet, PT 261 BOPD on 10/64-inch choke. GOR 2,371-1. Gra. 40.1. Perfd. 9,256-66 feet, IPF 30 BOD & 33 MCFGD on 10/64-inch choke. GOR 1,120-1. Gra. 37.7. Block 11, South Pass Area.

Plaquemines Parish: Shell Oil Co. 5-A State Lease 1007 OCS 0349-Block 24, South Pass Block 24. Oil Well. TD 8,348 feet, perfd. 8,184-190 feet. PT 232 BOD & 175,000 CFGD on 11/64-inch choke. GOR 756-1. Gra. 31.5. Block 24, South Pass Area.

Plaquemines Parish: Shell Oil Co. 38 State Lease 998-Block 11, South Pass Block 24. Oil Well. TD 7,918 feet, perfd. 7,876-85 feet. PT 236 BOD on 10/64-inch choke. GOR 428-1. Gra. 33. Block 11, South Pass Area.

Plaquemines Parish: Shell Oil Co. 21 State Lease 1009, South Pass Block 24. Gas-Distillate. TD 8,703 feet, perfd. 7,361-66 feet and 7,379-86 feet. Shut in, no gauge. Block 25, South Pass Area.

Plaquemines Parish: Shell Oil Co. 33 State Lease 998, South Pass Block 24. (Oil Well.) TD 7,360 feet, perfd. 7,202-10 feet. PT 233 BOD on 9/64-inch choke. GOR 435-1. Gra. 30.4. Block 11, South Pass Area.

Plaquemines Parish: Shell Oil Co. 34 State Lease 998, South Pass Block 24. Oil Well. TD 9,695 feet, perfd. 9,571-78 feet. PT 246 BOD on 9/64-inch choke. GOR 1,300-1. Gra. 39. Block 11, South Pass Area.

Plaquemines Parish: The California Co. 2-B State Lease 1069 (OCS 0385), West Delta Block 30. Oil Well. TD 10,009 feet, perfd. 8,646-62 feet. PT 260 BOD on 10/64-inch choke. GOR 700-1. Gra. 39.4. Block 29, West Delta Area.

Plaquemines Parish: Humble Oil & Refining Co. 1-F State Lease 820, West Delta Block 30. Oil Well. TD 7,030 feet, perfd. 4,506-34 feet. PT 147.2 BOD on 1/8-inch choke. GOR nil. Gra. 21.1. Block 31, West Delta Area.

Plaquemines Parish: The California Co. 8-A Louisiana State 1069 OCS 0385, West Delta Block 30. Oil Well. TD 8,209 feet, perfd. 8,020-35 feet. PT 240 BOD on 10/64-inch choke. GOR 1,066-1. Gra. 39.8. Block 29, West Delta Area.

Plaquemines Parish: Shell Oil Co. 10 State Lease 1012-OCS 0353, South Pass Block 27. Oil Well. Block 28, South Pass Area. TD 10,002 feet, perfd. 7,655-60 feet. PT 147 BOD on 12/64-inch choke. GOR 565-1. Block 28, South Pass Area.

Plaquemines Parish: The California Co. 7 Louisiana State 1277-OCS 0371, Main Pass Block 69. Oil Well. TD 8,429 feet, perfd. 8,230-41 feet. PT 216 BOD on 8/64-inch choke. GOR 490-1. Gra. 31.1. Block 68, Main Pass Area.

Plaquemines Parish: Shell Oil Co. 7 State Lease 1357, Main Pass Block 69. Oil Well. TD 7,202 feet, perfd. 7,007-16 feet. PT 232 BOD on 9/64-inch choke. Gra. 36.7. Block 81 Main Pass Area.

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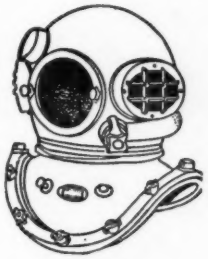

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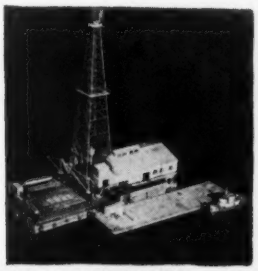

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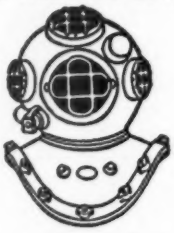

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Plaquemines Parish: The California Co. 6-F State Lease 1277, Main Pass Block 69. Oil Well. TD 8,509 feet, perfd. 6,376-90 feet. PT 133 BOD on 9/64-inch choke. GOR 2,860-1. Gra. 32. Block 68, Main Pass Area. (Originally was the No. 5-F.)

Plaquemines Parish: Shell Oil Co. 8 State Lease 1357, Main Pass Block 69. Oil Well. TD 8,500 feet, perfd. 8,054-56 feet. PT 258 BOD on 9/64-inch choke. GOR 430-1. Gra. 32. Block 81, Main Pass Area.

Plaquemines Parish: The California Co. 12 Louisiana State 1354 OCS 0383-Block 68, Main Pass Block 69. Oil Well. TD 8,130 feet, perfd. 7,004-18 feet. PT 280 BOD on 10/64-inch choke. GOR 593-1. Gra. 39. Block 68, Main Pass Area.

Plaquemines Parish: Shell Oil Co. 36 State Lease 1961, Main Pass Block 35. Shut-in Gas Well. TD 6,823 feet, perfd. 6,639-79 feet. Shut in. Block 35, Main Pass Area.

Plaquemines Parish: The California Co. 2 Louisiana State 2449, Main Pass Block 23. Dry Hole. TD 7,805 feet. Block 23, Main Pass Area.

Plaquemines Parish: Kerr-McGee Oil Industries, Inc., 1-A State Lease 2325, wildcat. Dry Hole. TD 7,350 feet. Block 11, Breton Sound Area.

Plaquemines Parish: Phillips Petroleum Co. 2 State Lease 2749, wildcat. Dry Hole. TD 10,700 feet. Block 49, Breton Sound Area.

St. Mary Parish: The Texas Co. 1 State Lease 839-OCS 0313-Block 46, wildcat. Dry hole. TD 14,000 feet. Block 46, Eugene Island Area.

St. Mary Parish: Phillips Petroleum Co. 1 Eugene "A," Eugene Island Block 128. Oil Well. TD 13,550 feet, perfd. 12,939-48 feet. PT 572 BOD on 10/64-inch choke. GOR 1,255-1. Gra. 34.5. Block 129, Eugene Island Area.

St. Mary Parish: Magnolia Petroleum Co. 1-J State Lease 691-Block 119 (OCS 048), Eugene Island Block 126. Dual Oil Well. TD 6,500 feet. Perfd. 6,328-40 feet. PT 245 BOD on 10/64-inch choke. GOR 539-1. Gra. 36.4. Perfd. 6,092-104 feet, PT 348 BOD on unreported choke. GOR 496-1. Gra. 37.9. Block 119, Eugene Island Area.

St. Mary Parish: Magnolia Petroleum Co. 3-K State Lease 691-OCS 049, Eugene Island Block 126. Dual Oil Well. TD 7,000 feet. Perfd. 5,580-90 feet, IPF 325 BOD on 12/64-inch choke. GOR 499-1. Gra. 35.6. Perfd. 6,112-22 feet, IPF 84 BOD, choke unreported. GOR 872-1. Gra. 38.4. Block 119, Eugene Island Area.

Terrebonne Parish: Max Pray 1 State Lease 759 "A," wildcat. Dry Hole. TD 17,000 feet. Block 48, Ship Shoal Area.

Terrebonne Parish: Gulf Refining Co. 2-C OCS 0420, Ship Shoal Block 154. Dry Hole, Temporarily Abandoned. TD 6,034 feet. Block 154, Ship Shoal Area.

Terrebonne Parish: Magnolia Petroleum Co. C-5 State Lease 794 (OCS-074) Block 20, South Pelto Block 20. Dry Hole. TD 9,680 feet. Block 20, South Pelto Area.

Terrebonne Parish: Humble Oil & Refining Company A-4 State Lease OCS 019, South Timbalier Block 54. New Pay Opener. TD 12,140 feet, perfd. 7,812-30 feet. PT 143.34 BOD on 1/8-inch choke. GOR 420-1. Gra. 35.9. Block 54, South Timbalier Area.

Terrebonne Parish: Magnolia Petroleum Co. 2-E State Lease 763-OCS 057-Block 64, Ship Shoal Block 72. Oil Well. TD 10,820 feet, perfd. 9,584-90 feet. PT 353 BOD on 10/64-inch choke. GOR 858-1. Gra. 37.2. Block 64, Ship Shoal Area.

Terrebonne Parish: Gulf Refining Co. 1-C OCS 0420, Ship Shoal Block 154. Shut-in Gas Well. TD 7,255 feet in STH, perfd. 6,464-74 feet. PT 750 MCFGD, shut in. Block 154, Ship Shoal Area.

Vermilion Area: Gulf Refining Co. 2-A Block 179-OCS 0492, wildcat. Dry Hole. TD 9,149 feet. Block 179, Vermilion Area.

Vermilion Area: Gulf Refining Co. 1-A OCSL 0452-Block 180, wildcat. Dry hole. TD 13,076 feet. Block 180, Vermilion Area.

Vermilion Area: Pure Oil Co. 1-C State Lease 1091, Vermilion Block 39. Gas Well. TD 10,215 feet, perfd. 8,752-60 feet and 8,772-78 feet. GOR 1,000,000-1. Block 42, Vermilion Area.

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Oil Man's Calendar: 1956

APRIL

19-21 Gas Appliance Manufacturers Assn. (annual meeting), The Greenbrier, White Sulphur Springs, W. Va.

23-25 Southern Gas Assn. Convention, Dallas, Texas

MAY

2-4 American Institute of Electrical Engrs. (Northeastern District No. 1), Rochester, N. Y.

6-9 Liquefied Petroleum Gas Assn. (Convention and Trade Show), Conrad Hilton Hotel, Chicago, Ill.

14-16 AMERICAN PETROLEUM INSTITUTE (Annual Pipe Line Conference), Shamrock Hotel, Houston, Texas

14-17 AMERICAN PETROLEUM INSTITUTE (Division of Refining, 21st midyear meeting), Montreal, Canada

John M. Payne Is Named API District Chairman

John M. Payne, with Shell Oil Company in Houston, has been named new district chairman for the Southern District of the American Petroleum Institute.

Area vice chairmen elected include: A. T. Miller, with Mobar Mud Company in Lake Charles, for Southwest Louisiana; J. F. Roth, with The Red Supply Company in Houma, for Southern Louisiana; and Roy A. Bobo, with Phillips Petroleum Company in Houston, for the Texas Gulf Coast.

New secretary-treasurer is W. D. Bynum, with Hycalog, Inc., at Shreveport.

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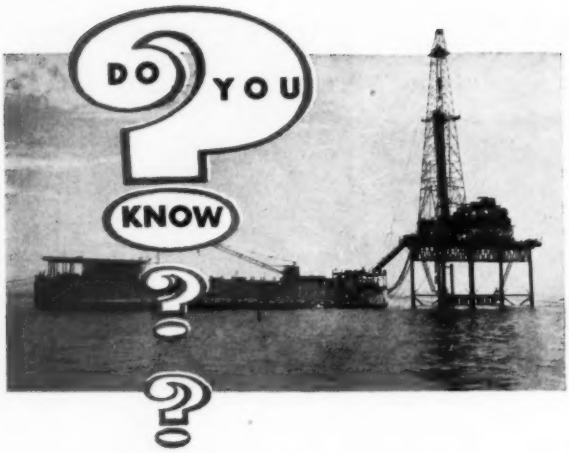

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"Well, how is everything going?" he asked.

"It was going just fine," replied the courtier, "until the fit hit the Shan."

The Cooneaux had mortgaged pirogue, muskrat traps and the cabin on the bayou to give his daughter a college education. He was beaming from ear to ear, and playing the role of the proud parent to the hilt, when his girl returned home. But as he pointed the pirogue homeward he was greatly perturbed to have his daughter whisper: "Pa, I have a confession to make. I ain't a virgin no more."

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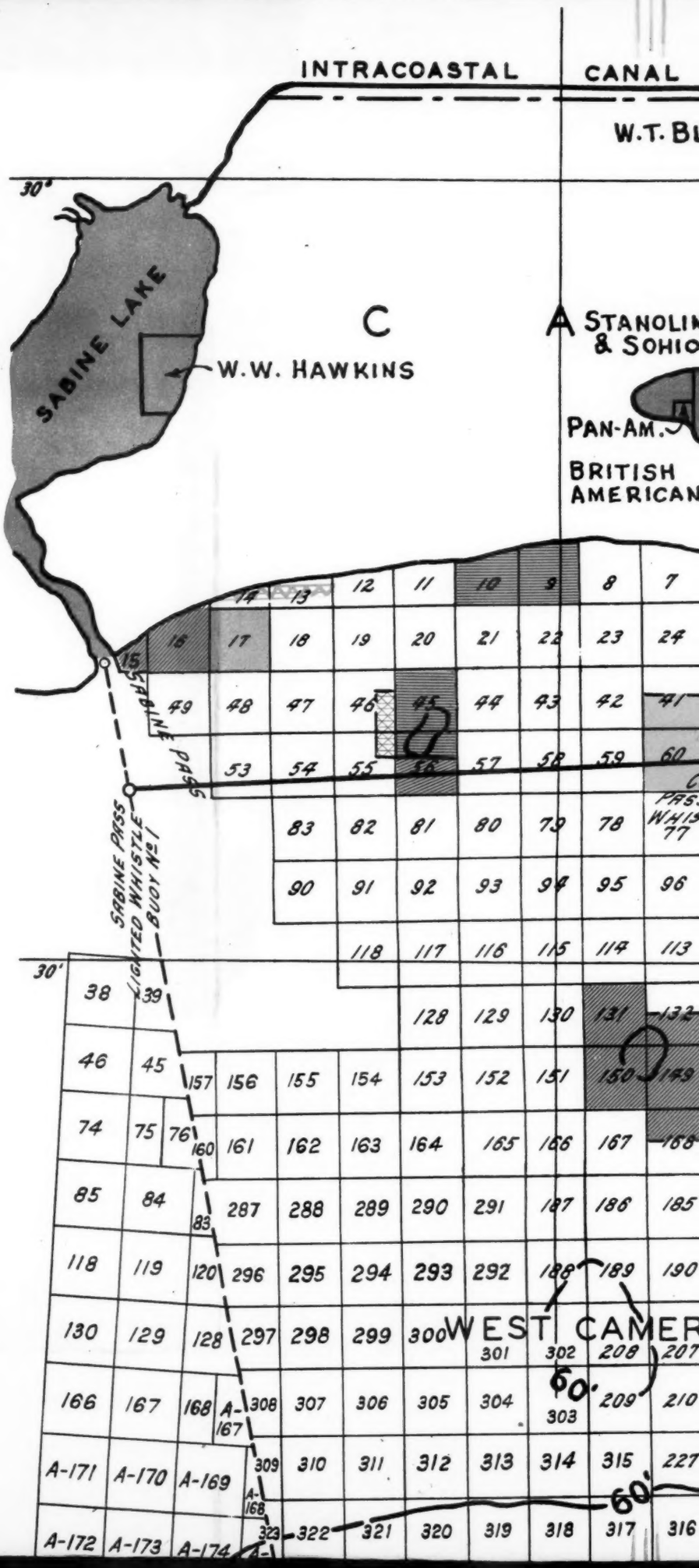

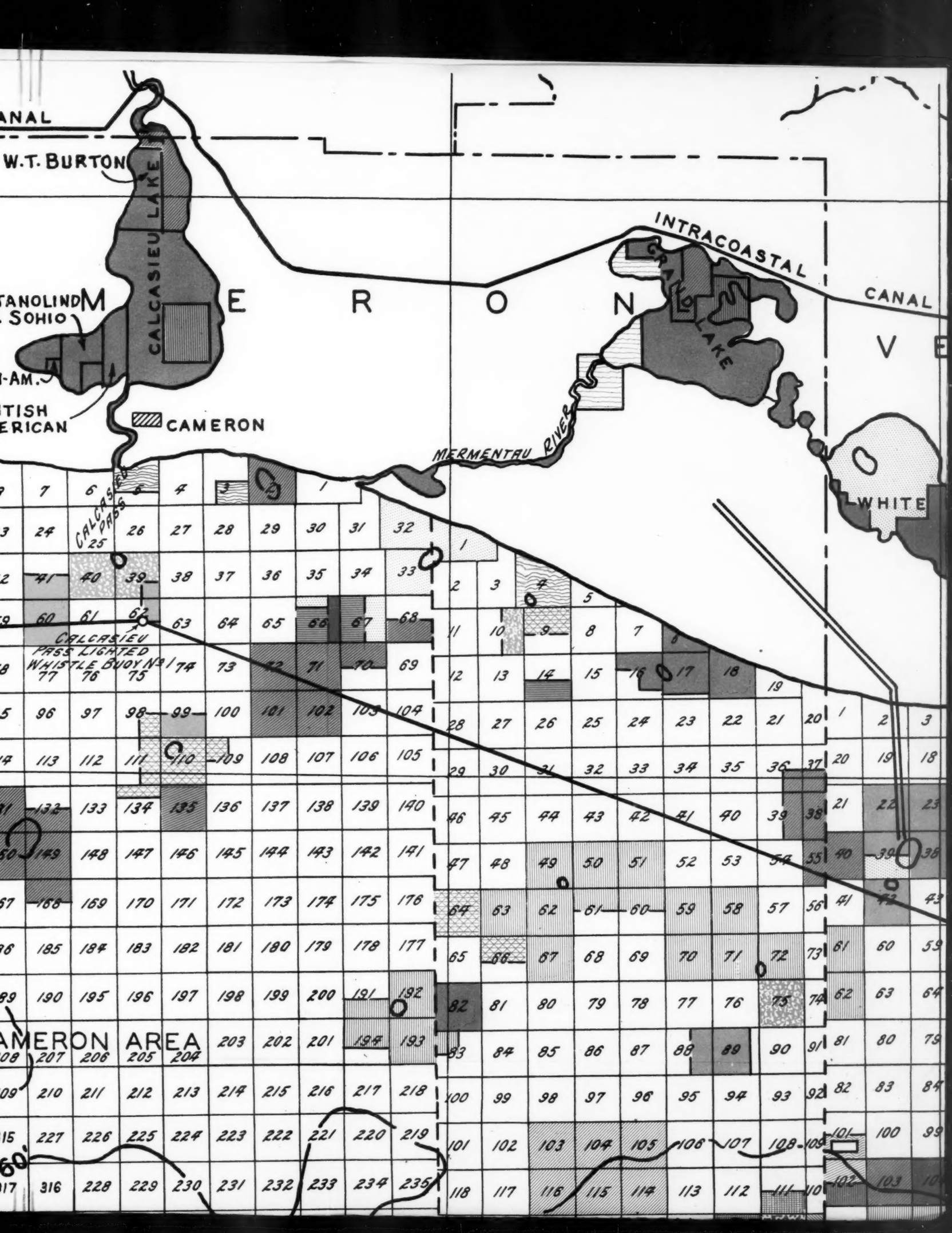
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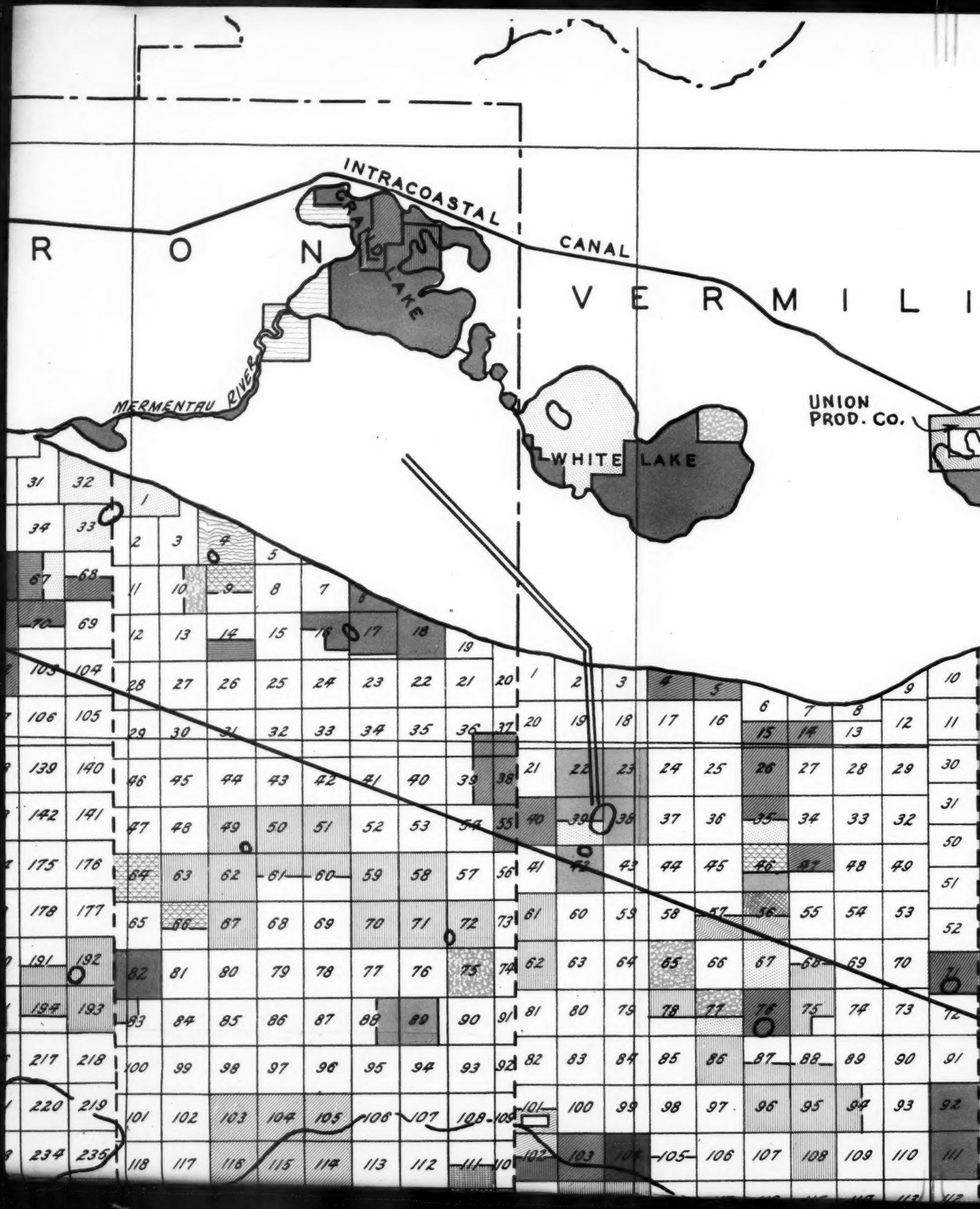
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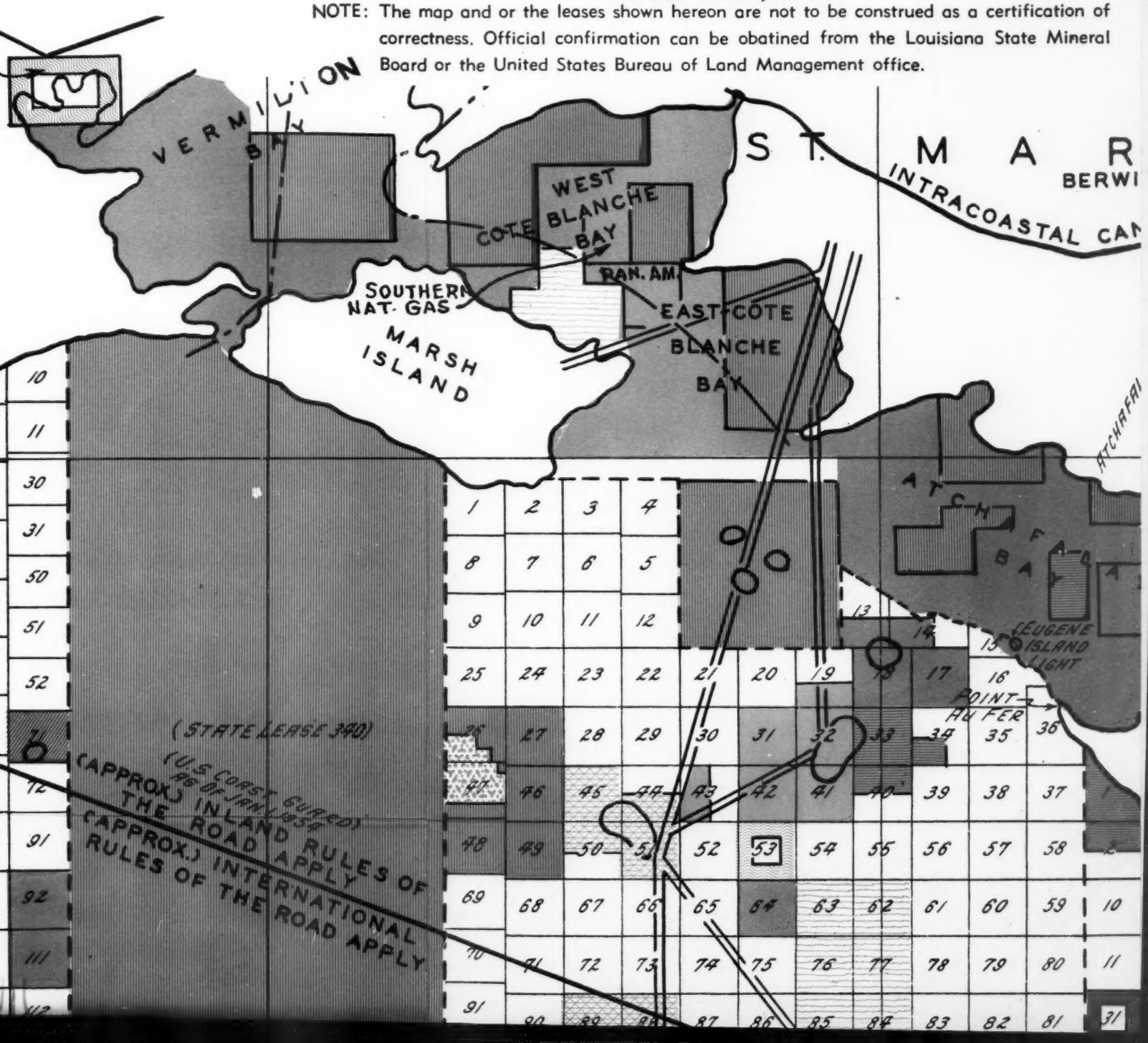

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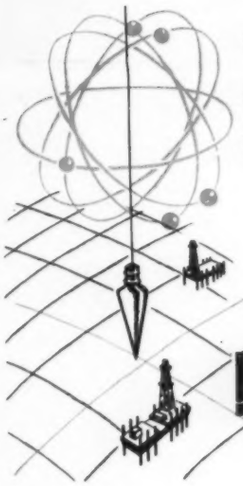

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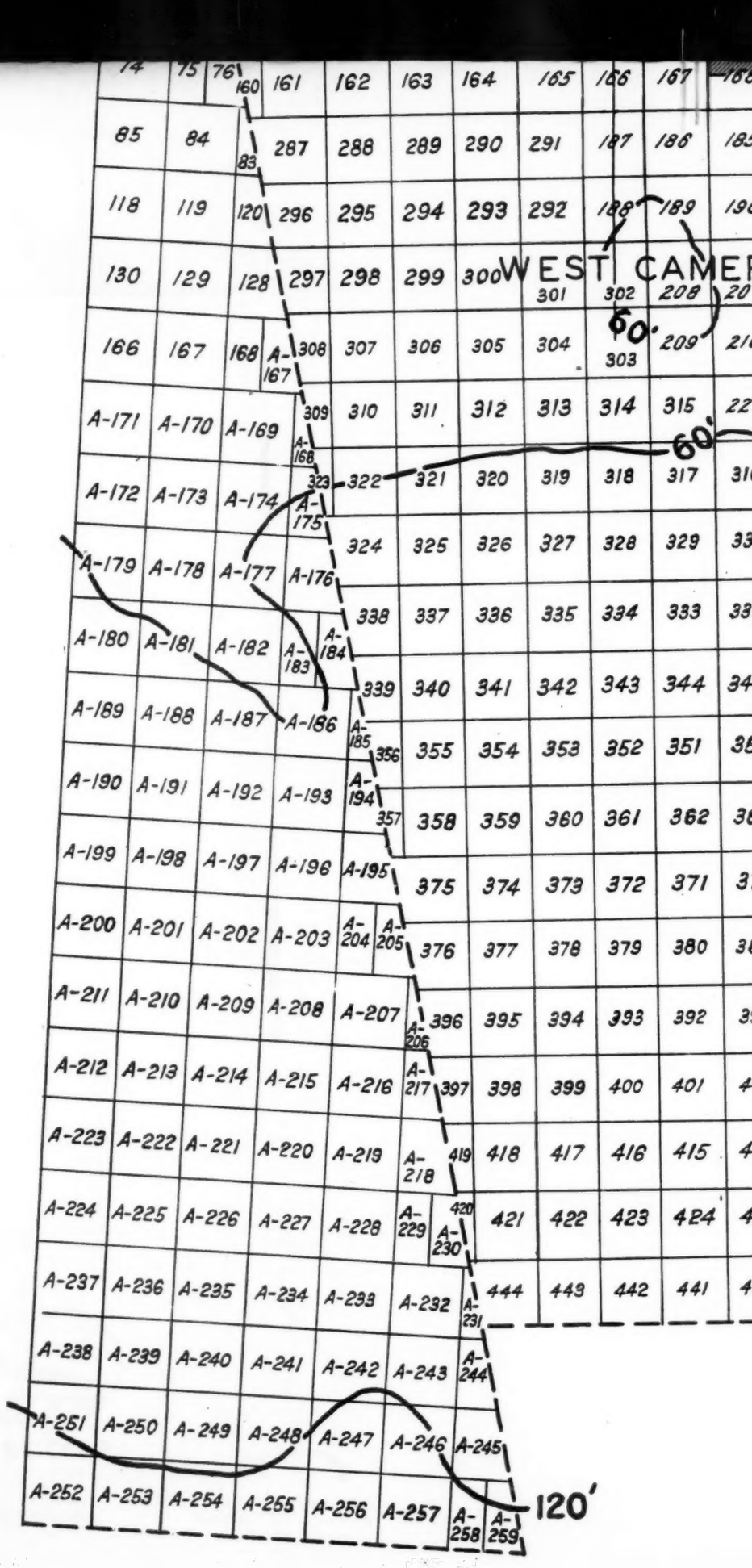

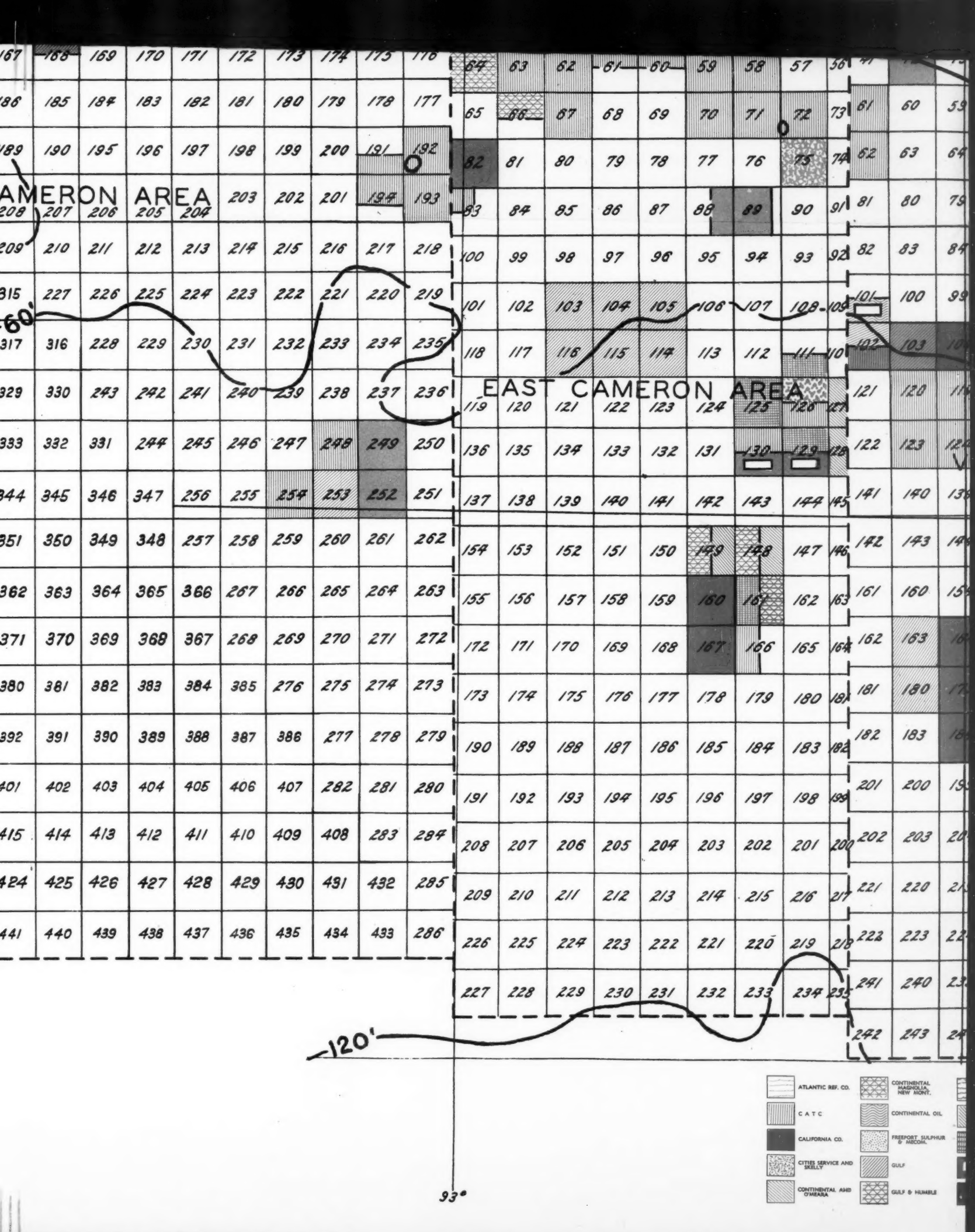
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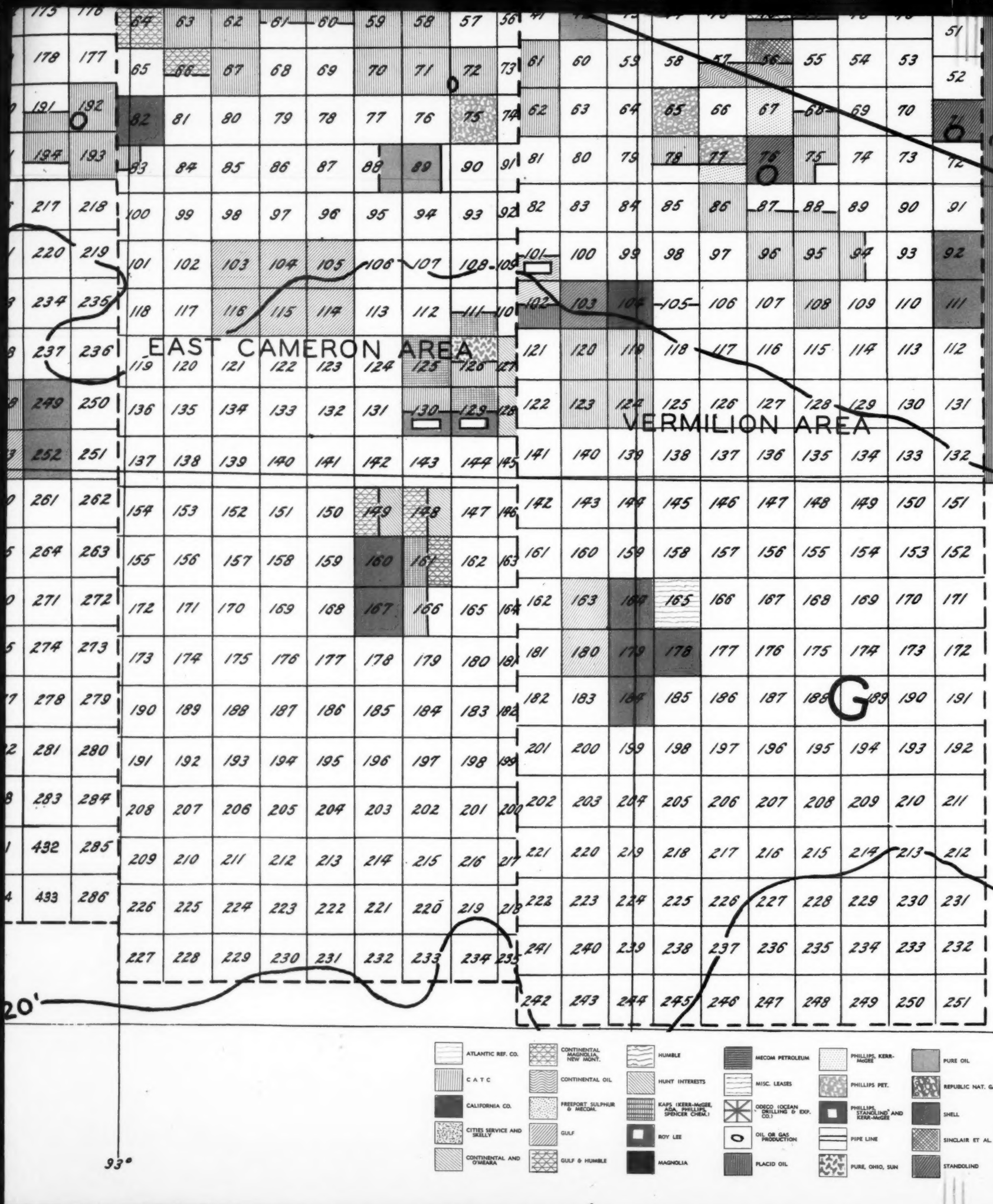
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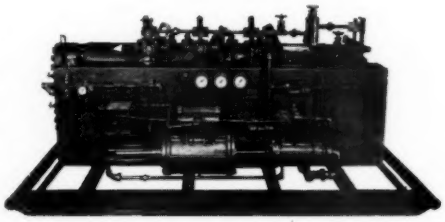

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